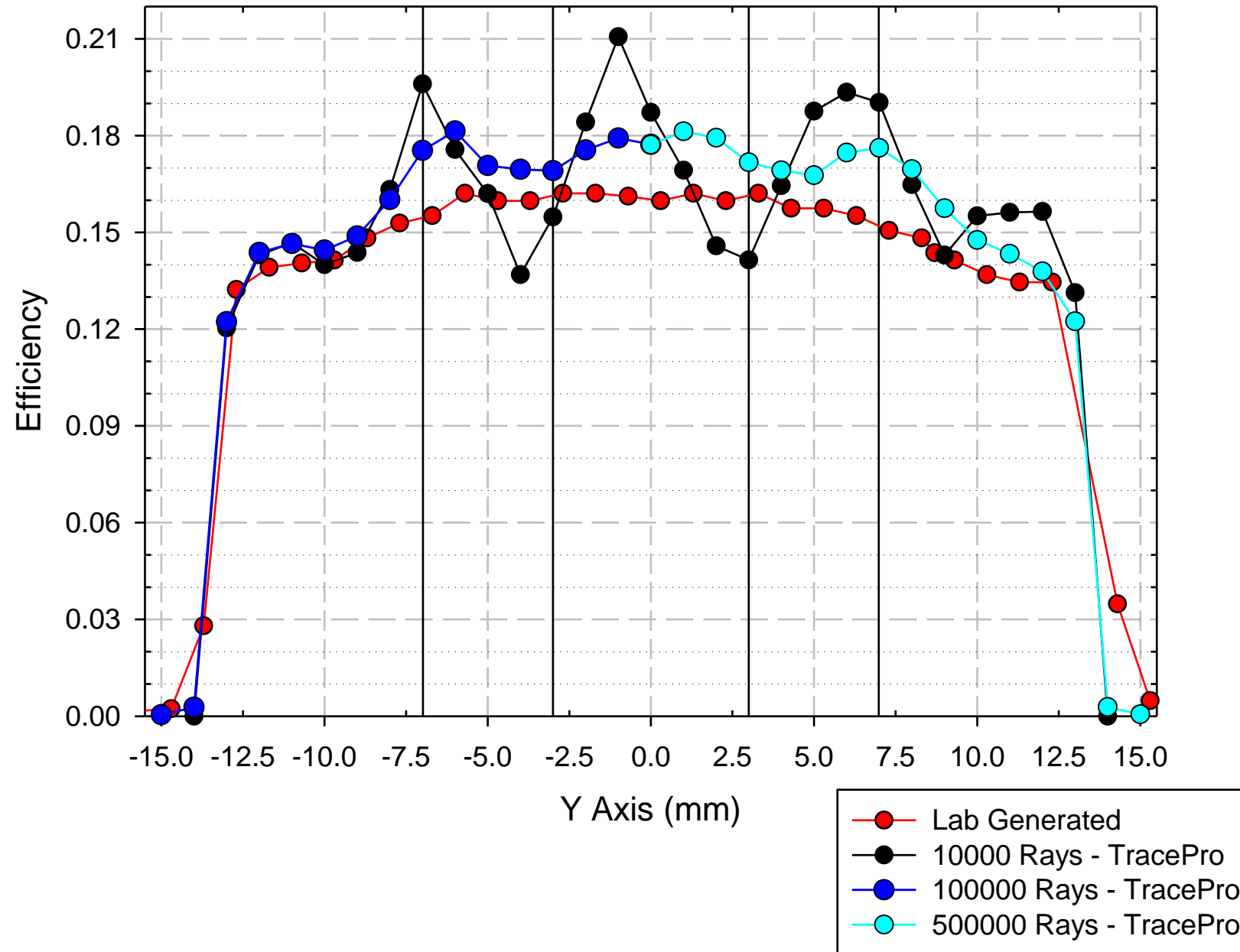


Light Guide Efficiency Comparisons

Each with 1mm Air Gap Between fiber and Light Guide

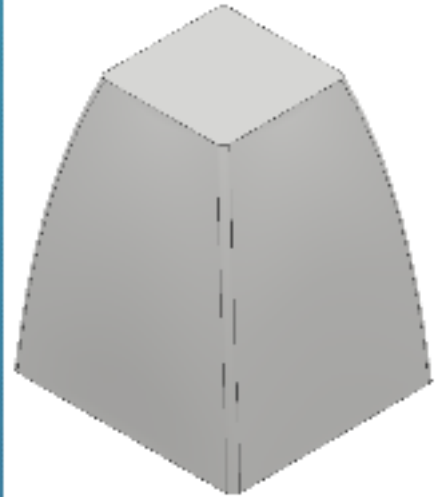
Higher Statistics Comparison

Four SiPMs with Air Gap Flux Efficiency - No Screw Hole

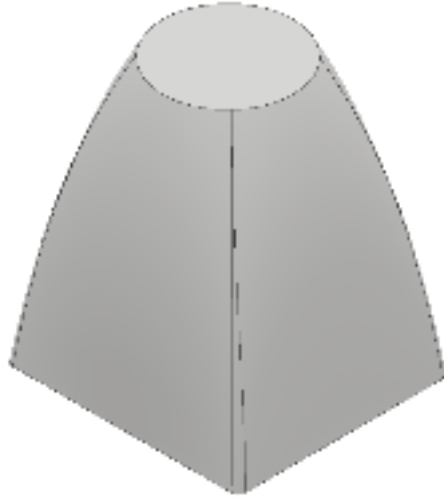


Only did half of the measurements because the program takes a while to render this much data.

LGWC1

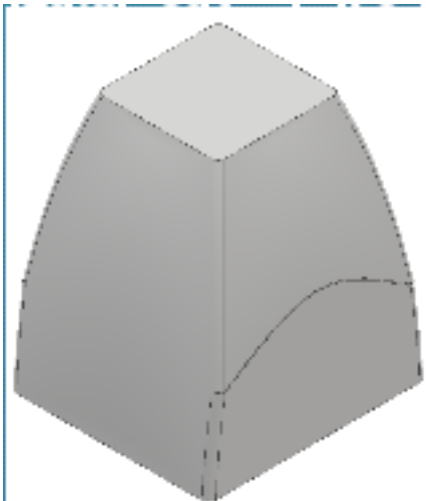


LGWC2

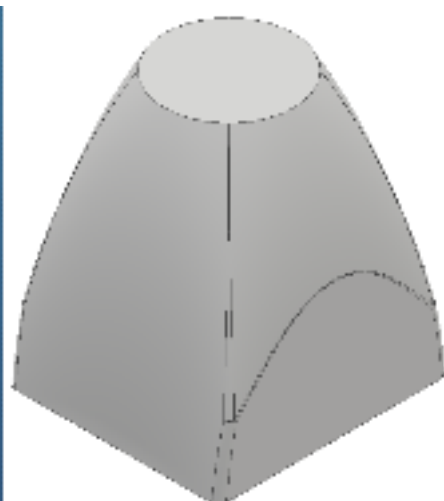


Winston Cone Light Guide Shape

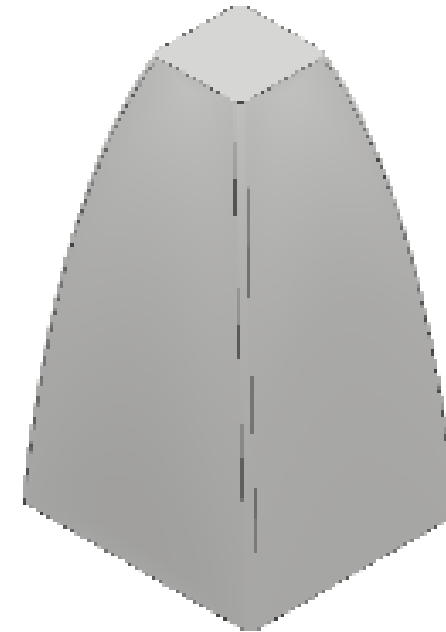
LGWC3



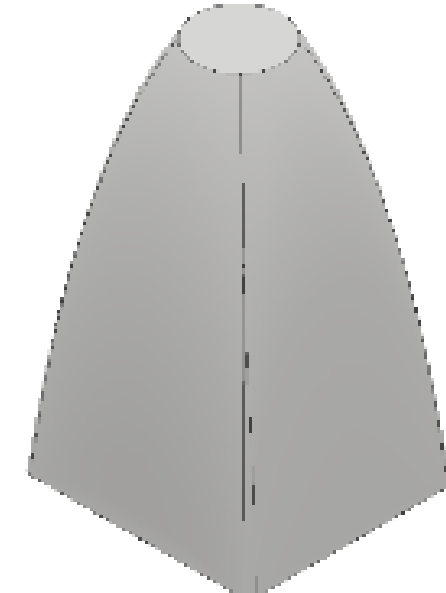
LGWC4



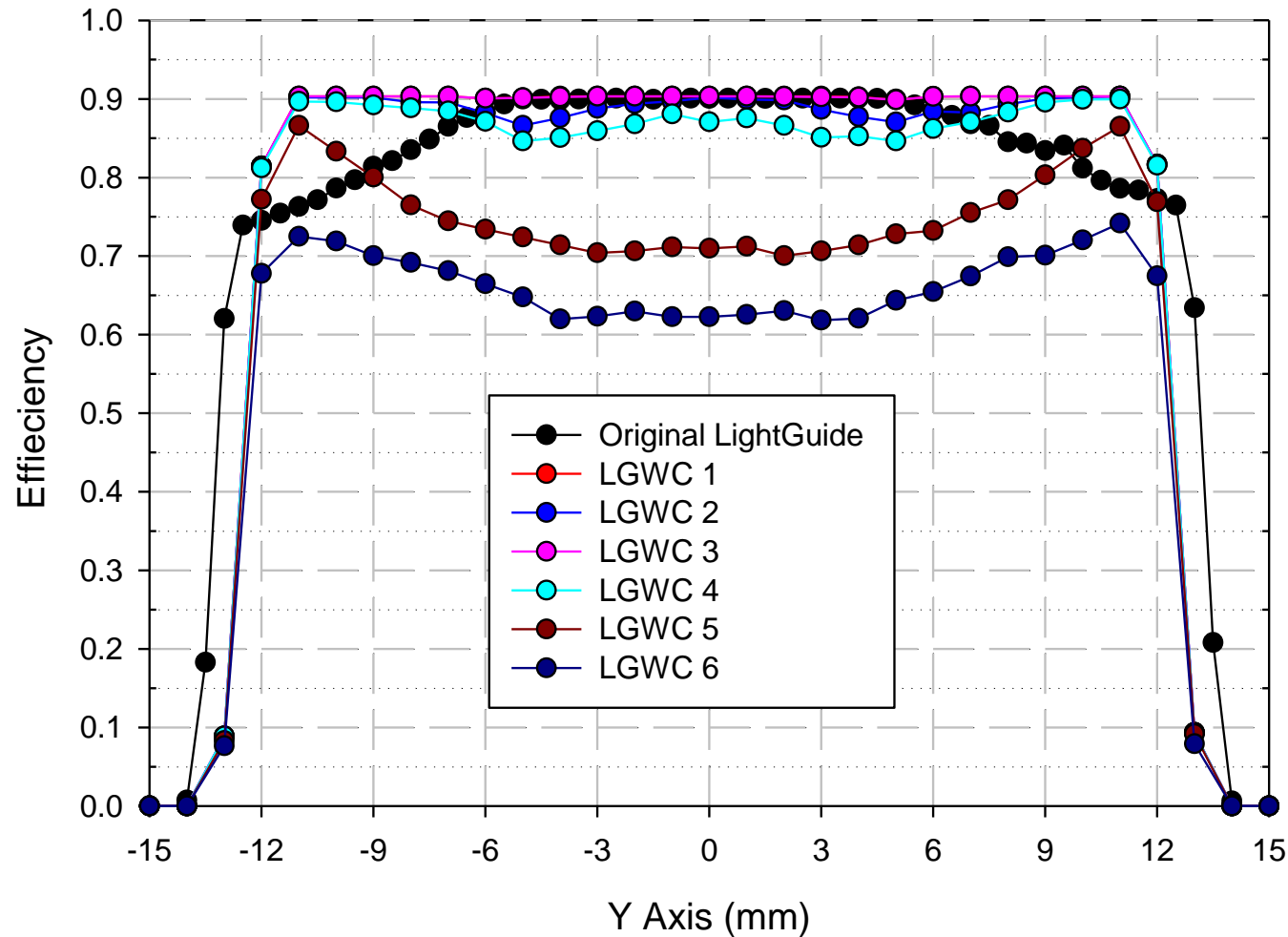
LGWC5



LGWC6



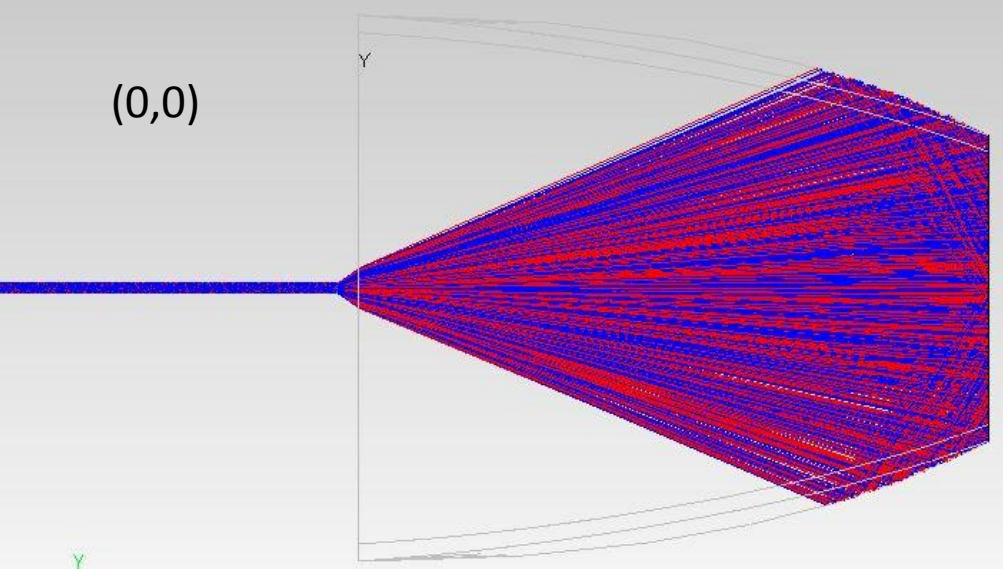
TracePro Light Guide Efficiency Comparisons



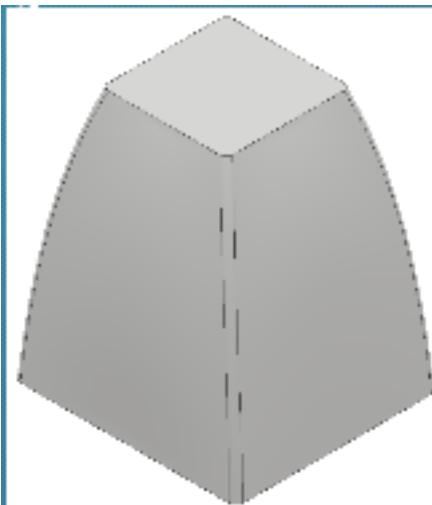
The pink and Green perfectly fall on top of each other.

All of the following pictures are of this graph in the **Y AXIS**.

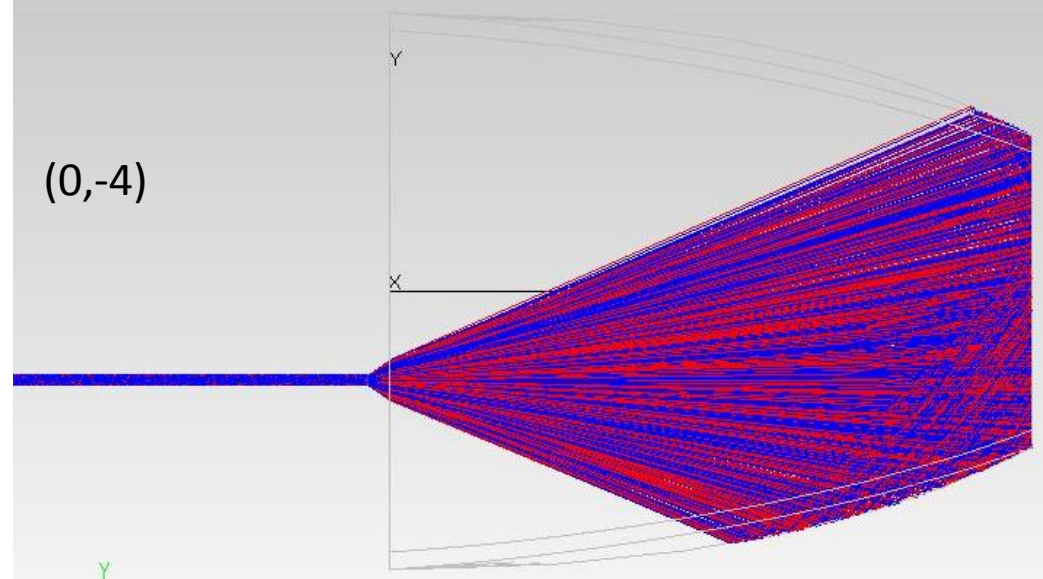
(0,0)



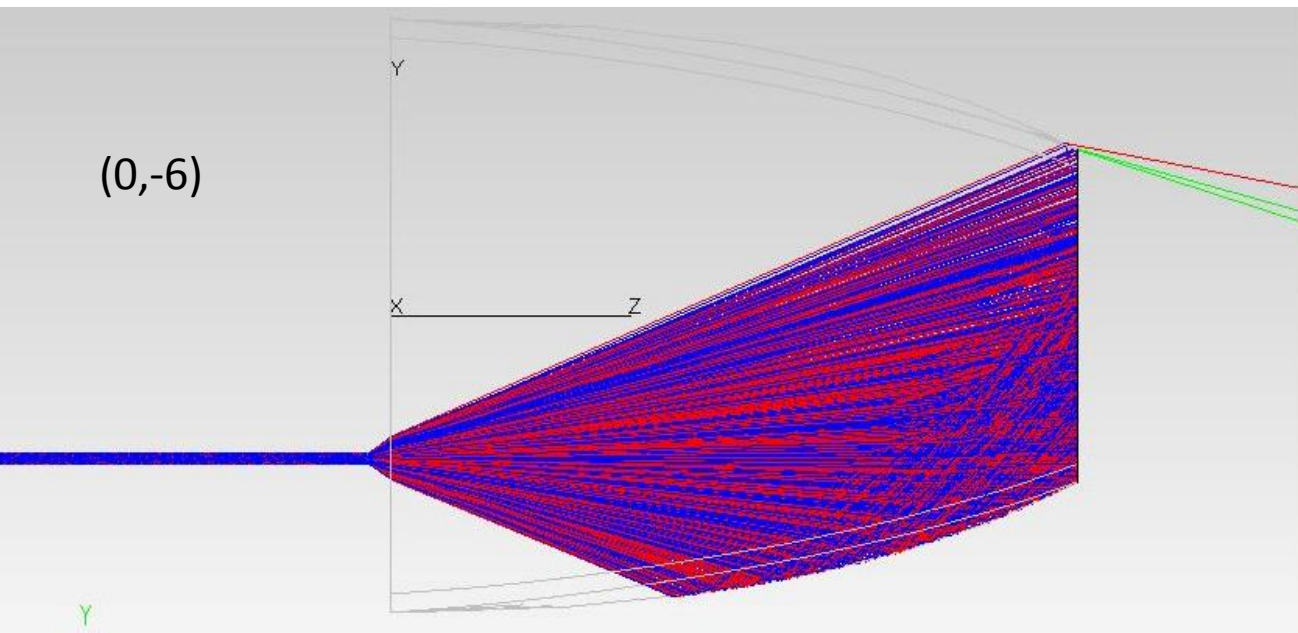
LGWC 1



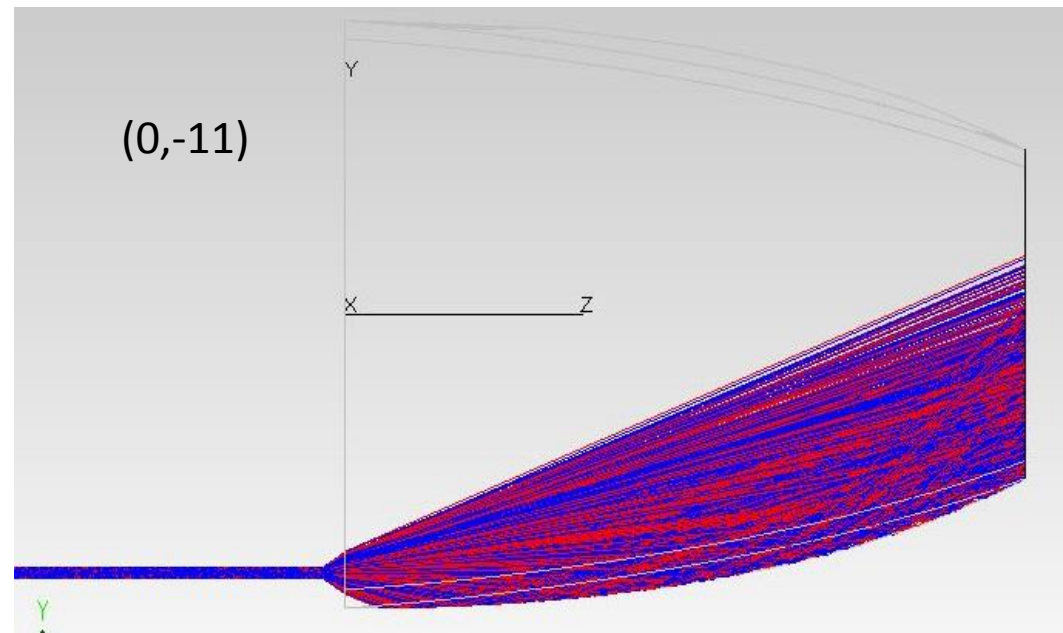
(0,-4)

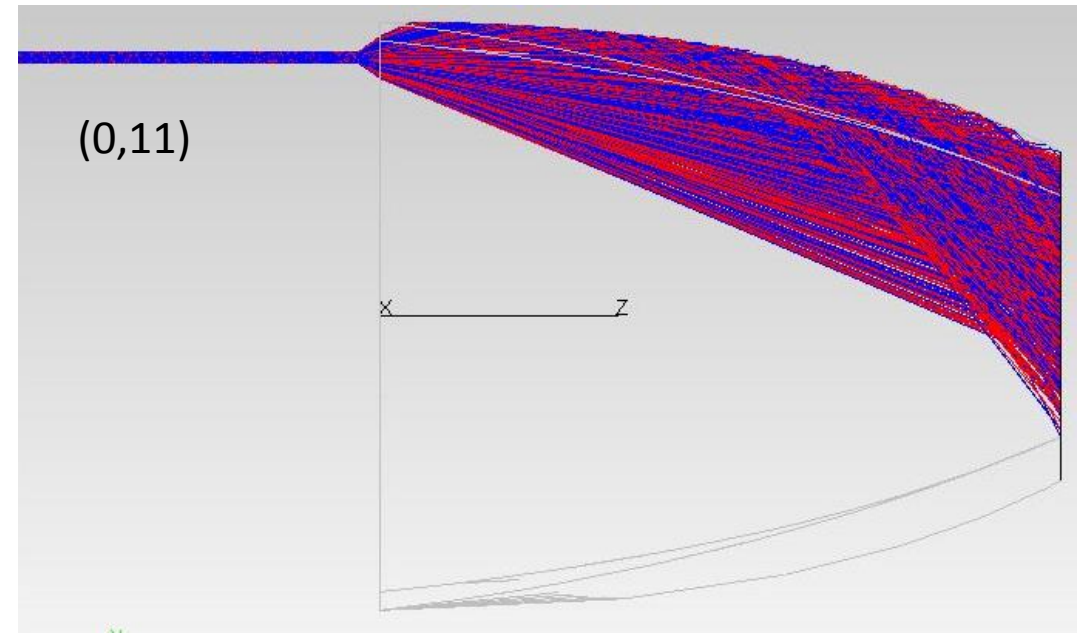
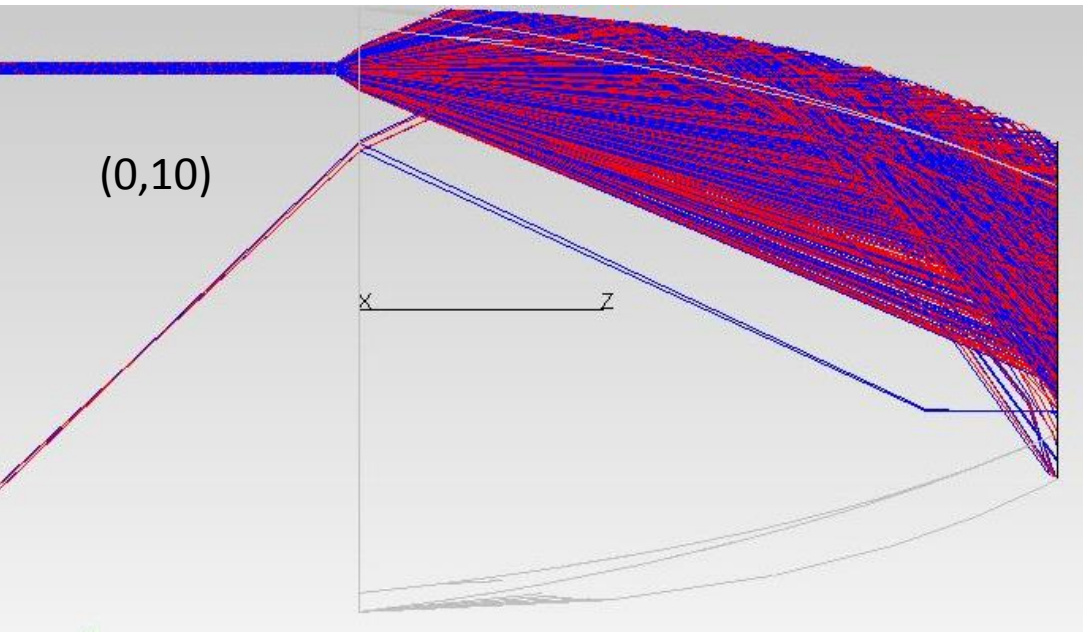
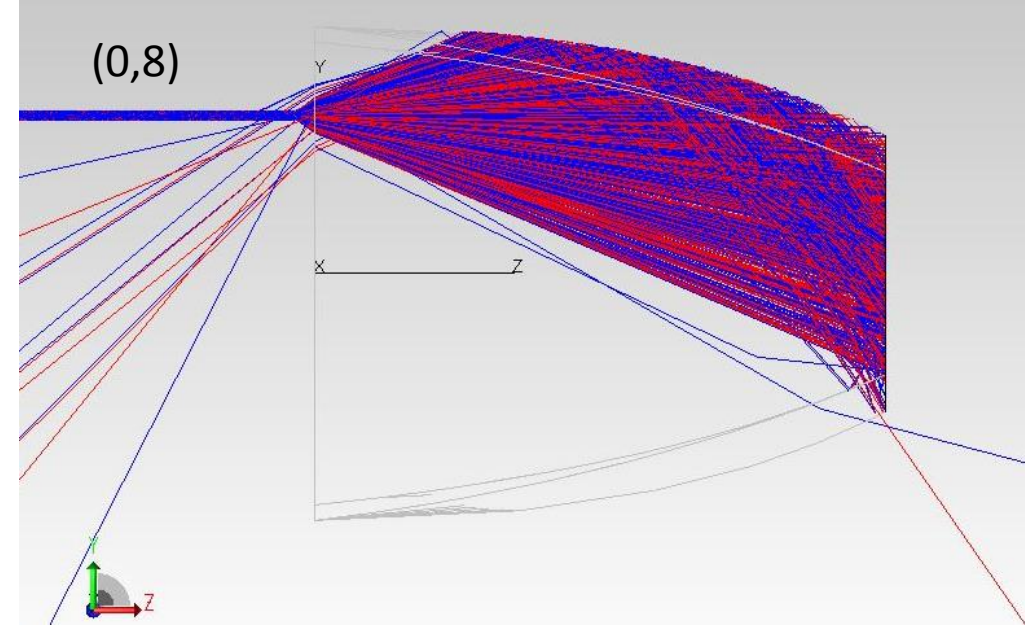
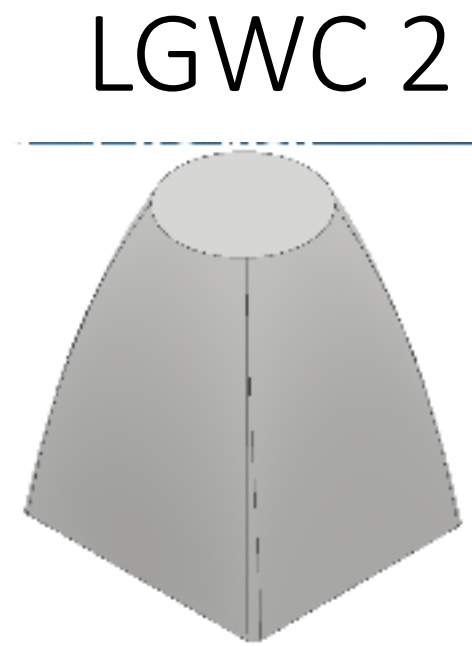
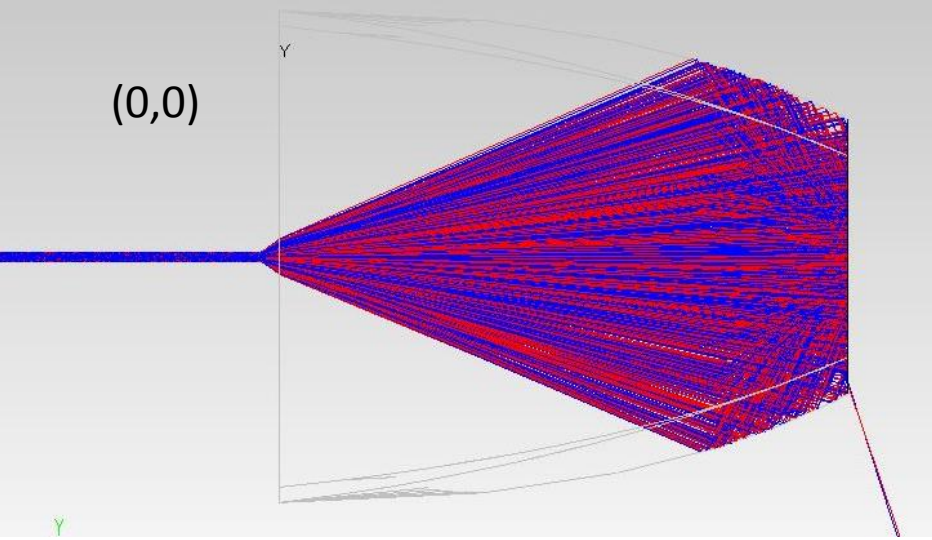


(0,-6)

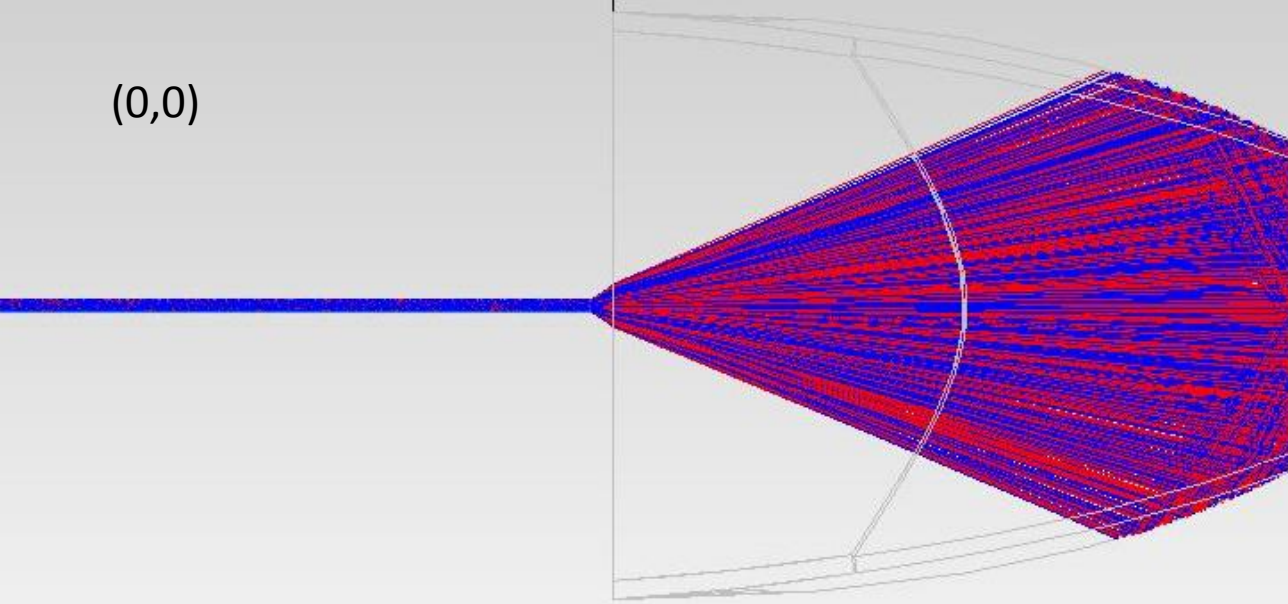


(0,-11)

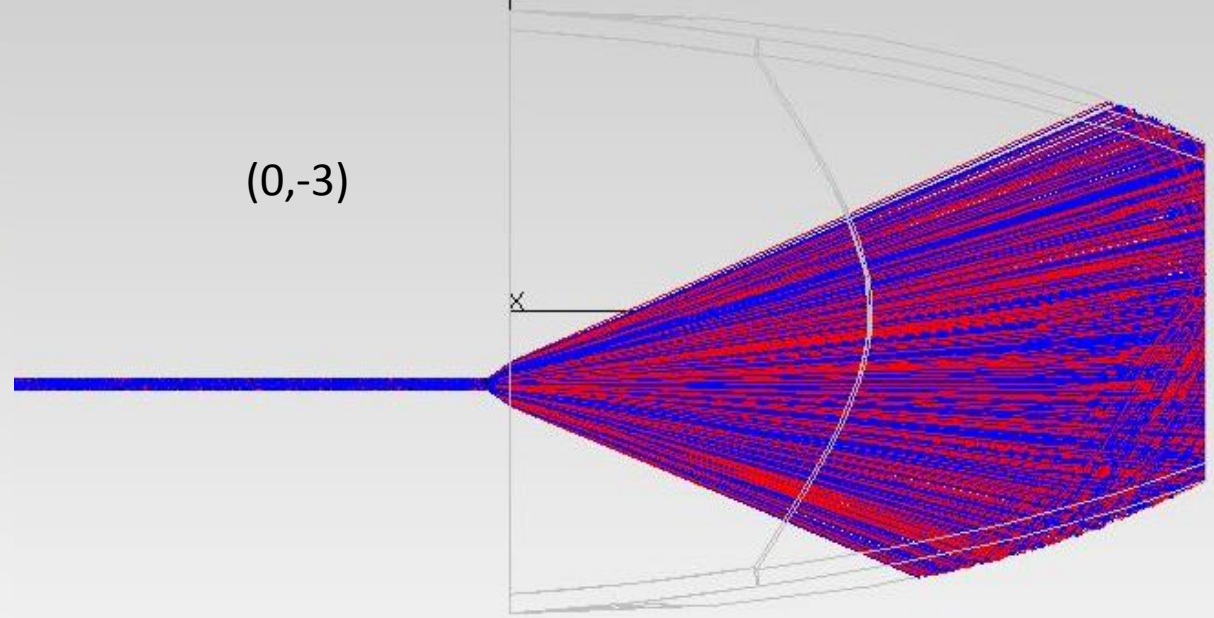




$(0,0)$

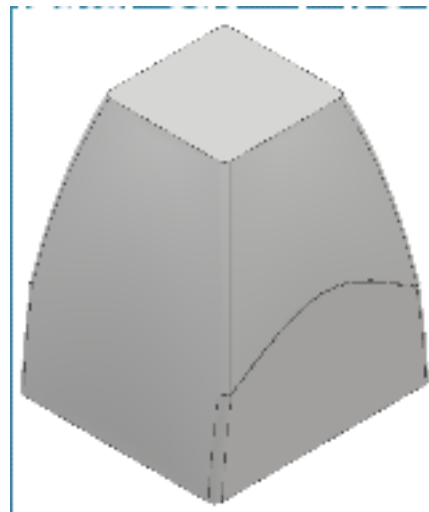
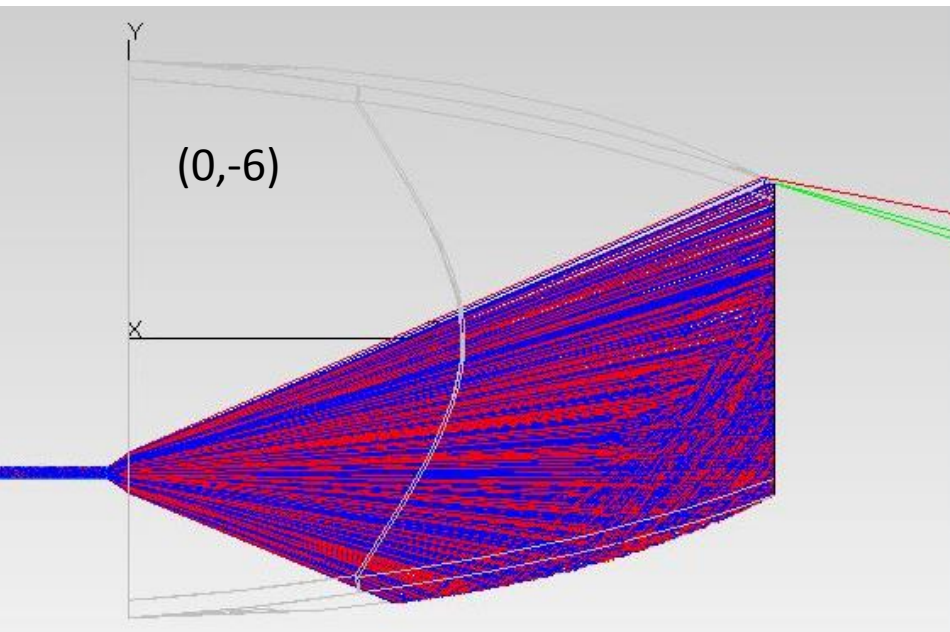


$(0,-3)$

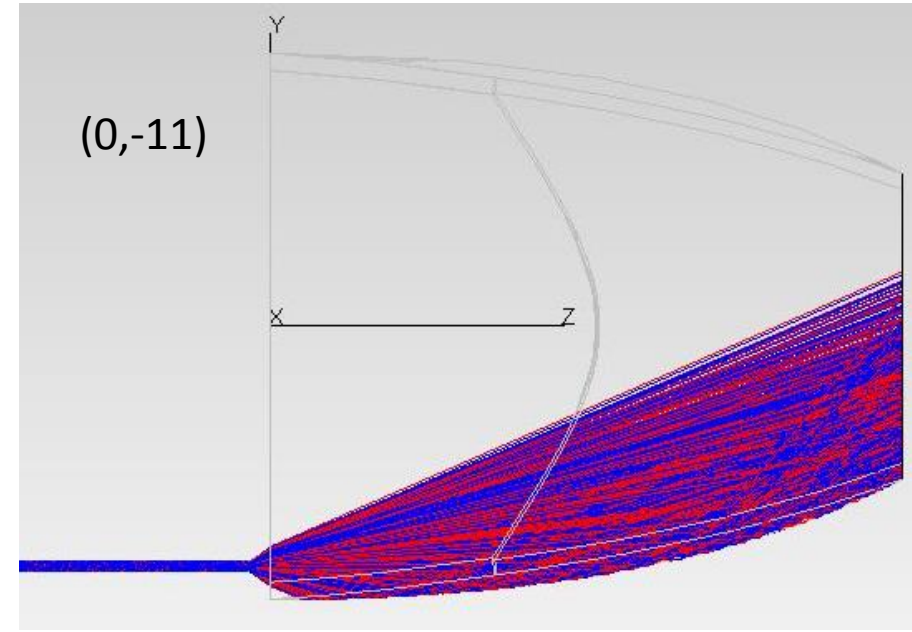


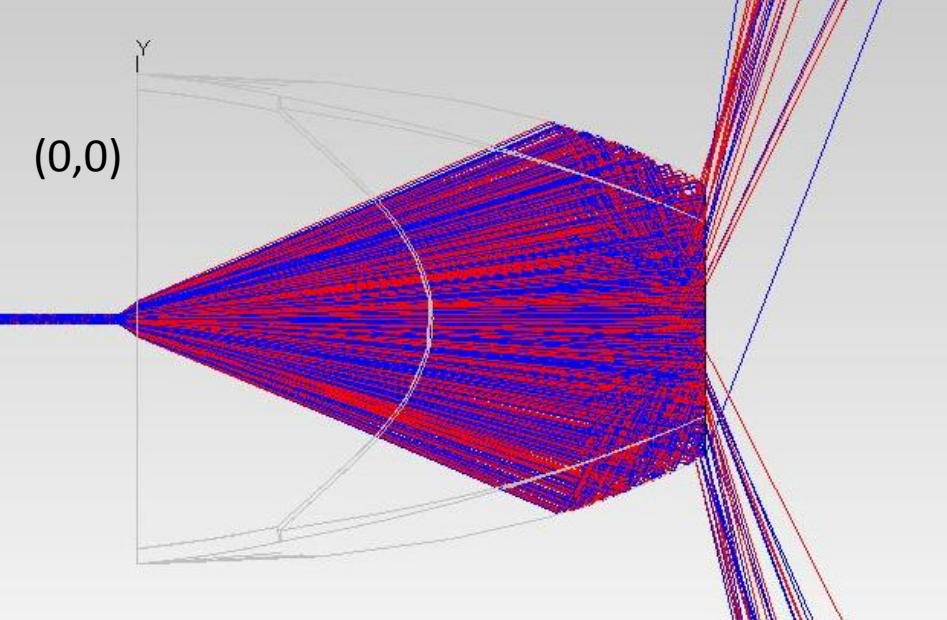
LGWC 3

$(0,-6)$

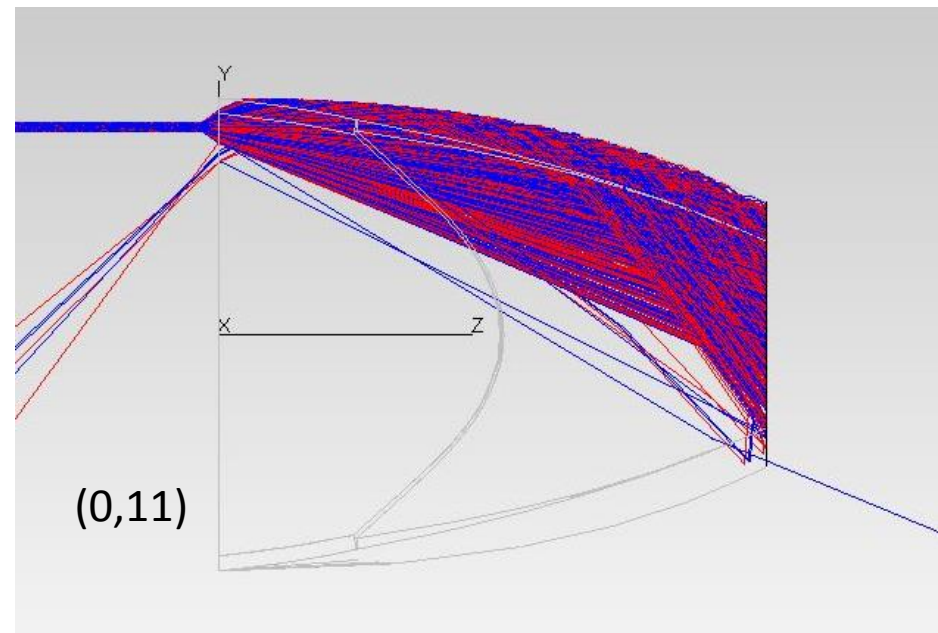
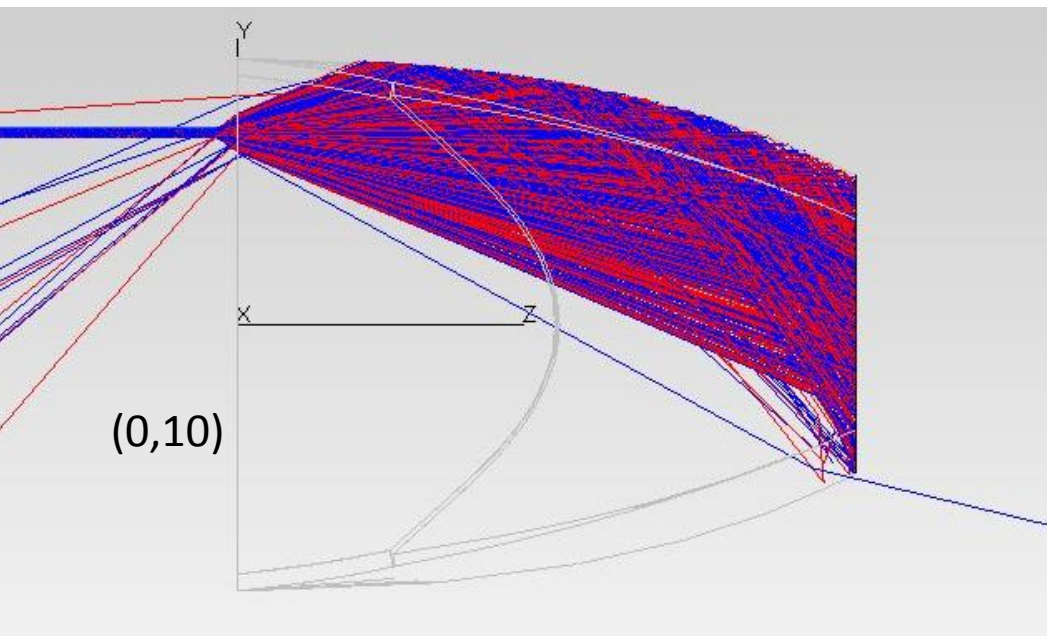
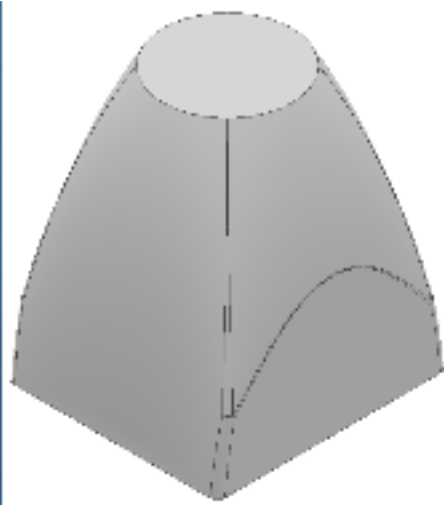


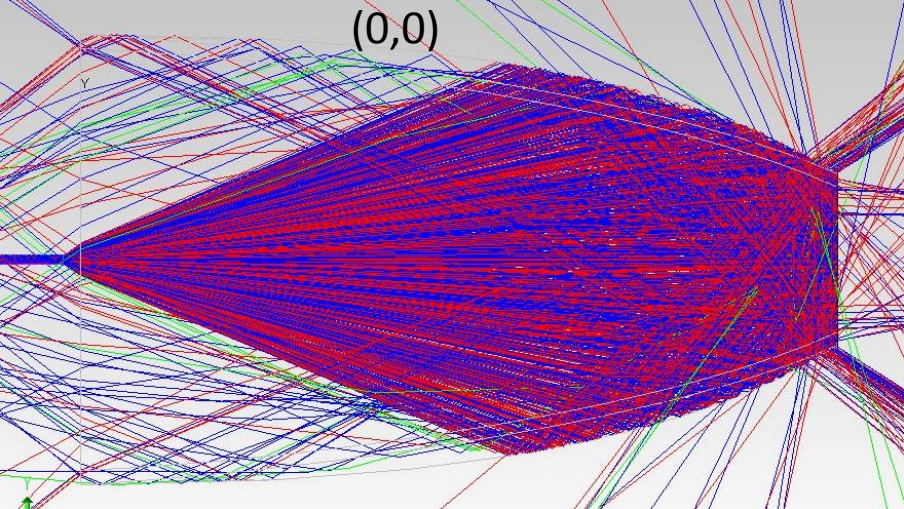
$(0,-11)$



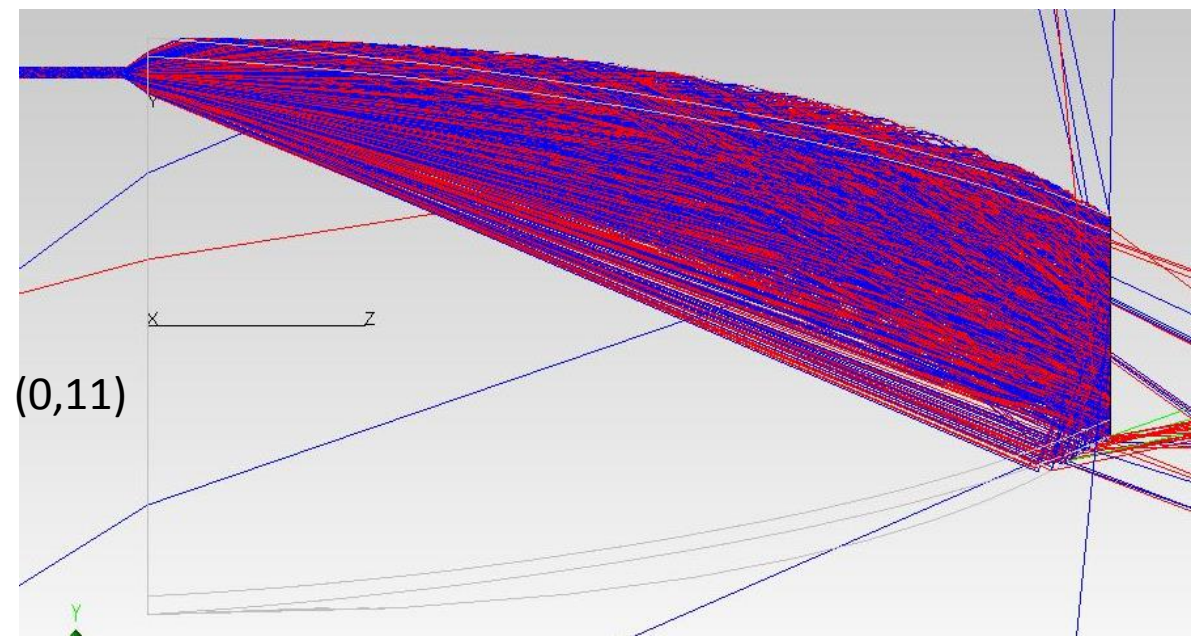
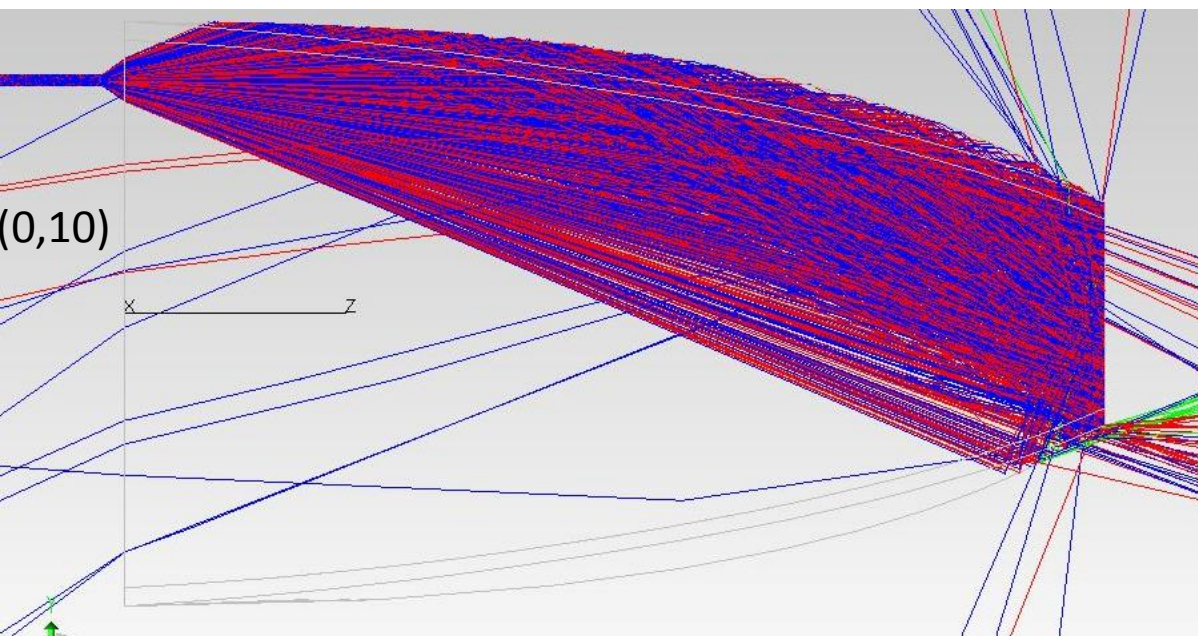
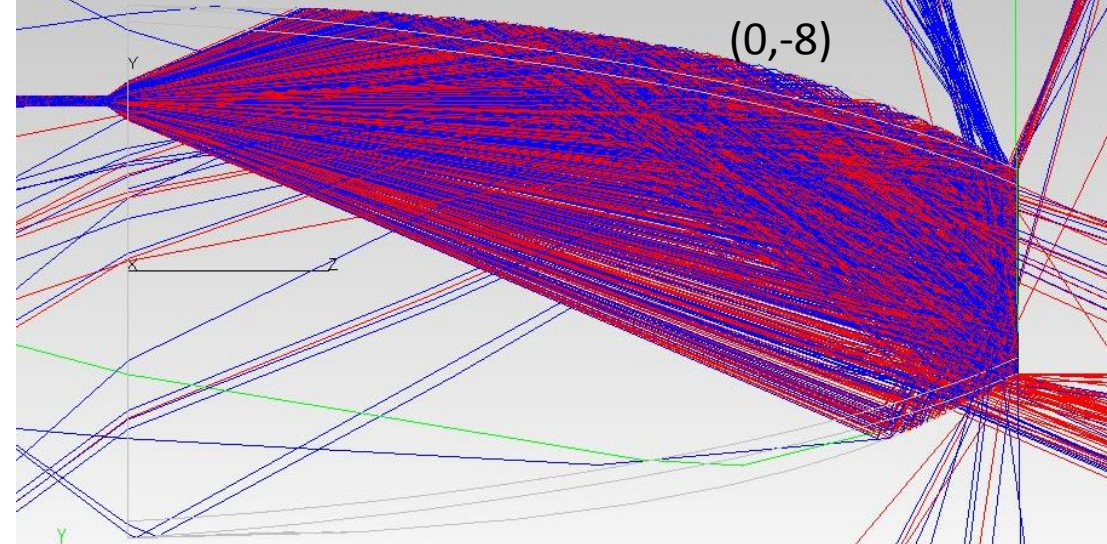
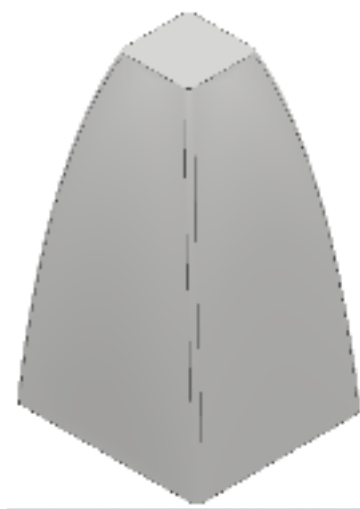


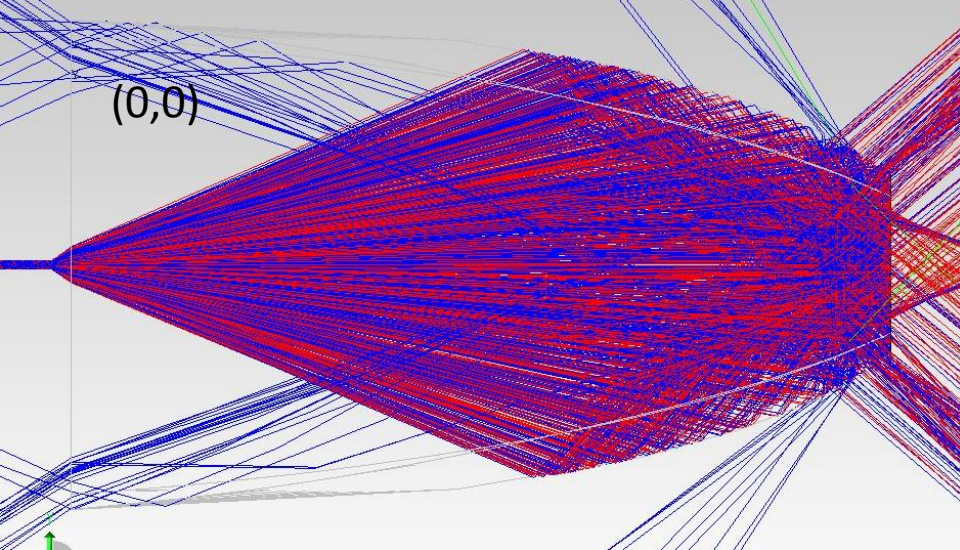
LGWC 4



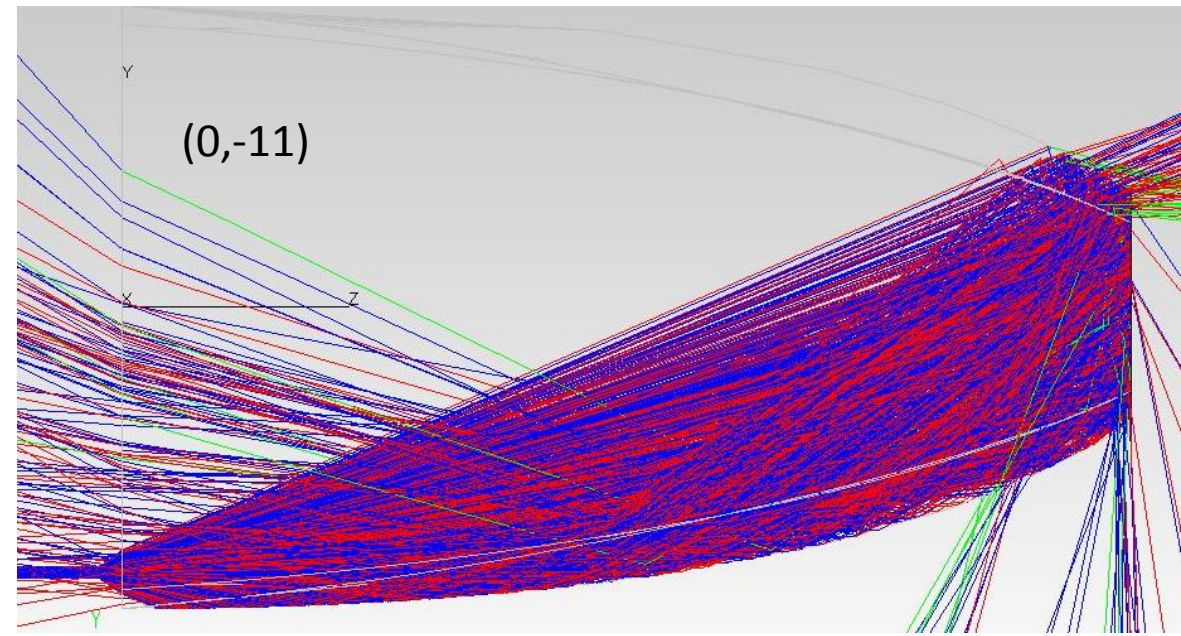
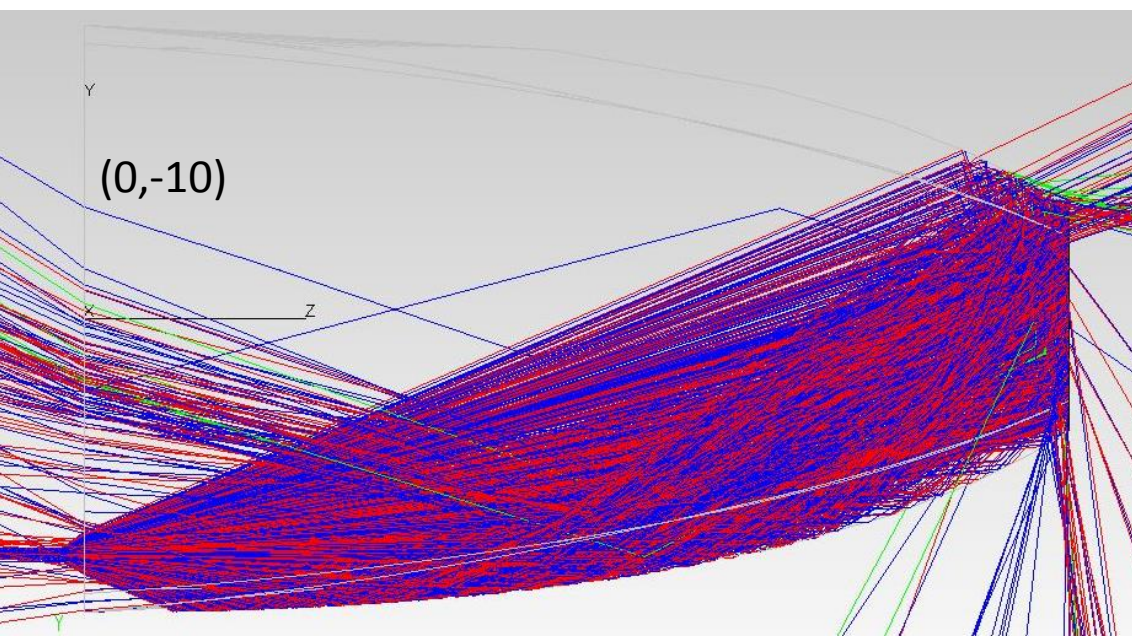
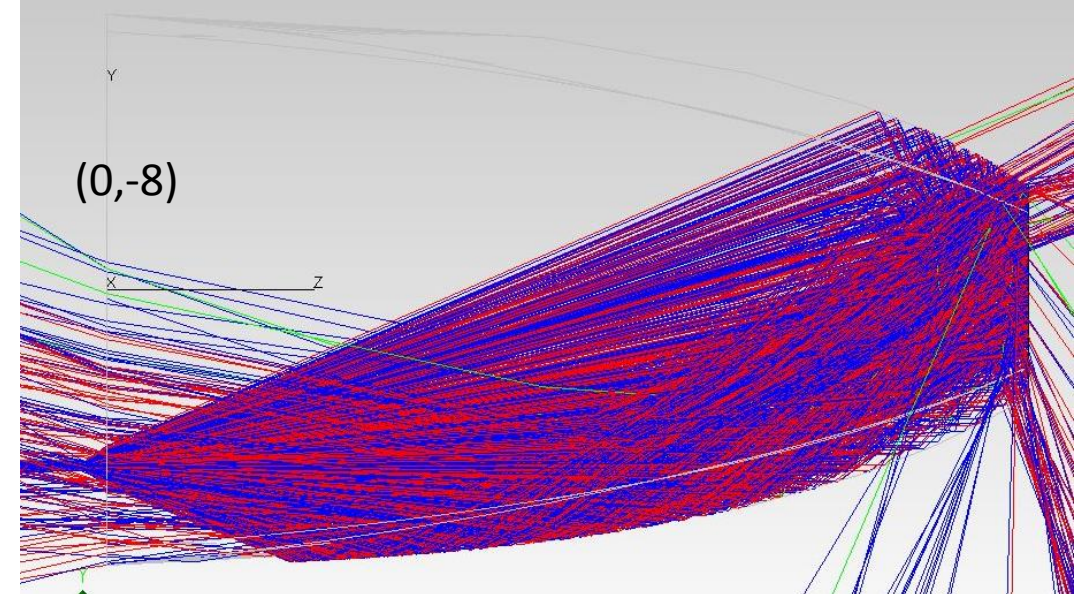
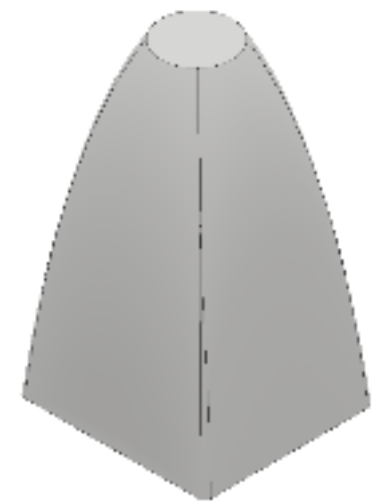


LGWC 5

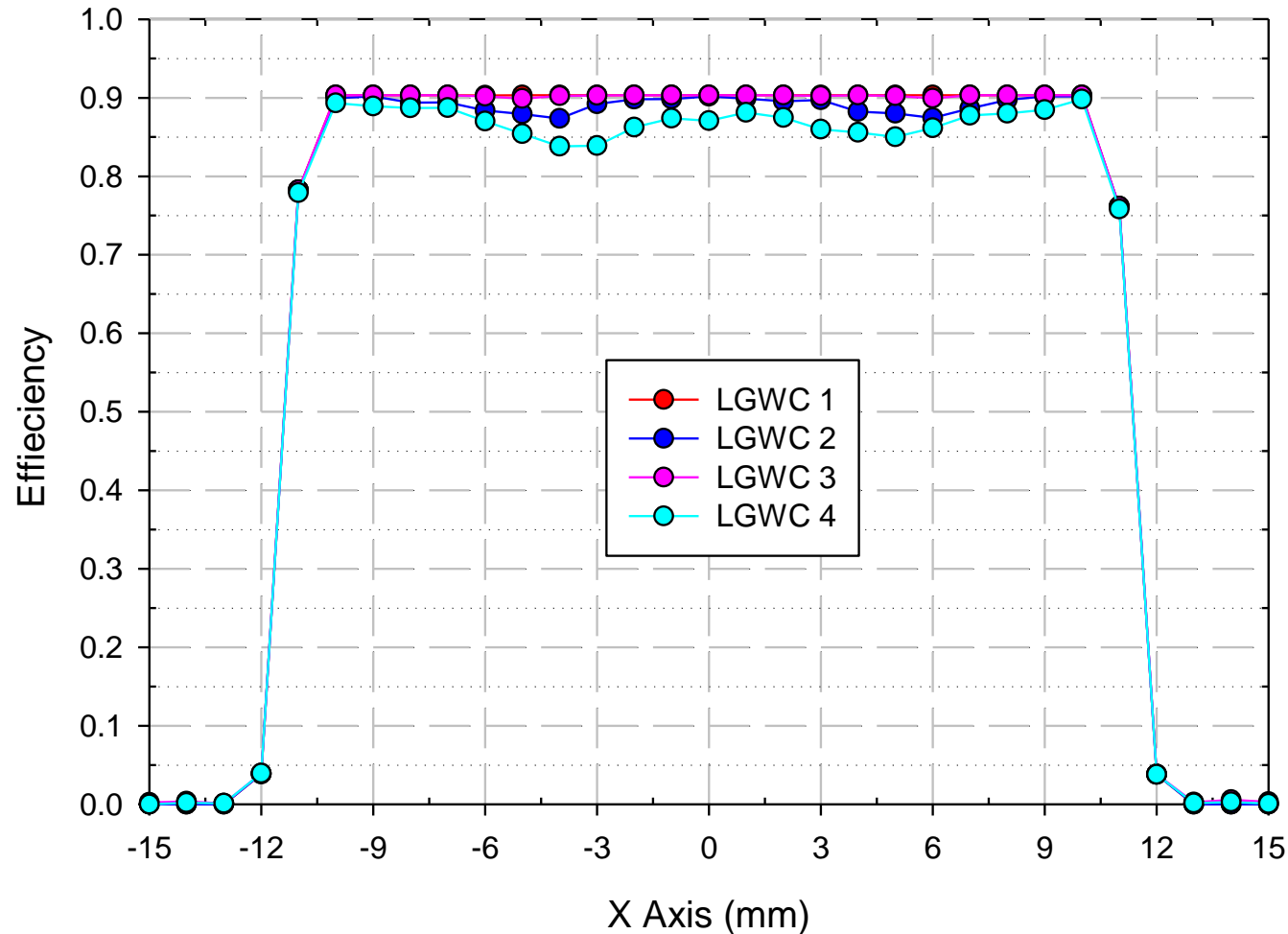




LGWC 6

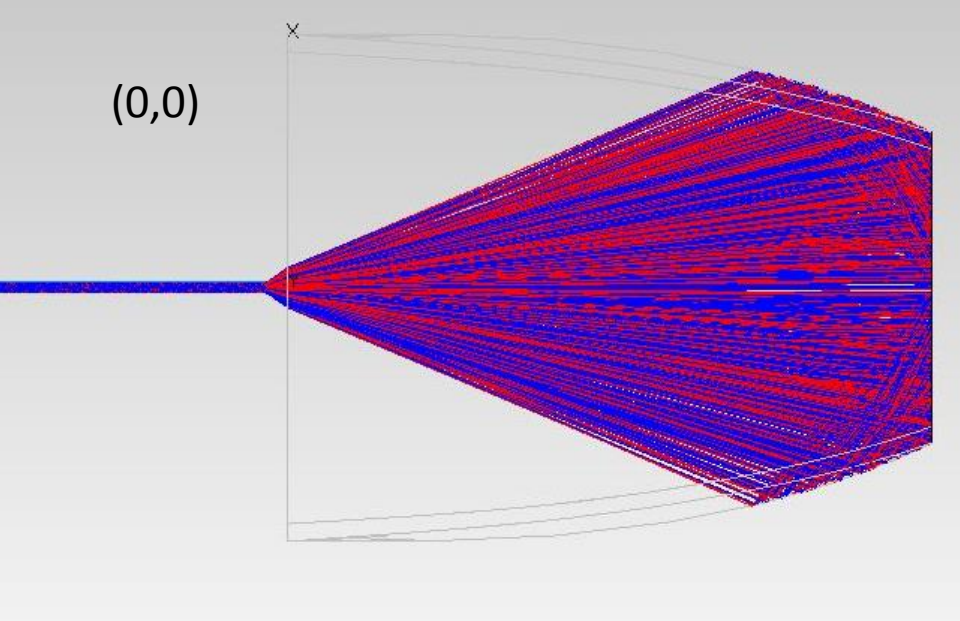


TracePro Light Guide Efficiency Comparisons

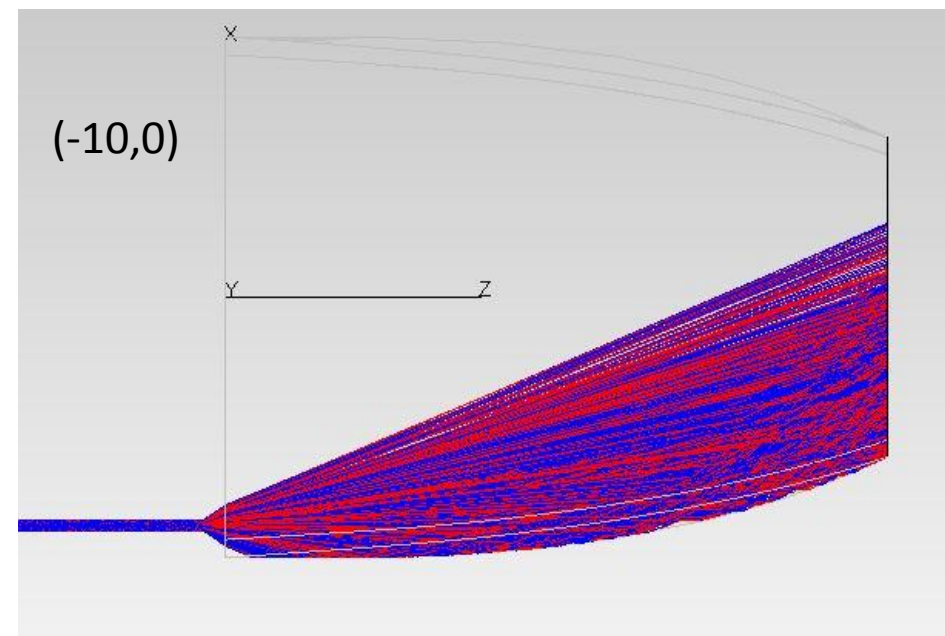
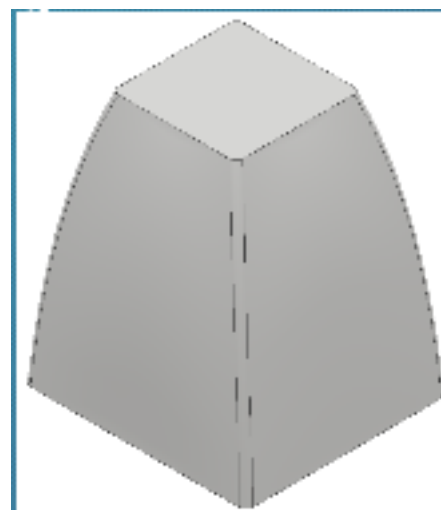


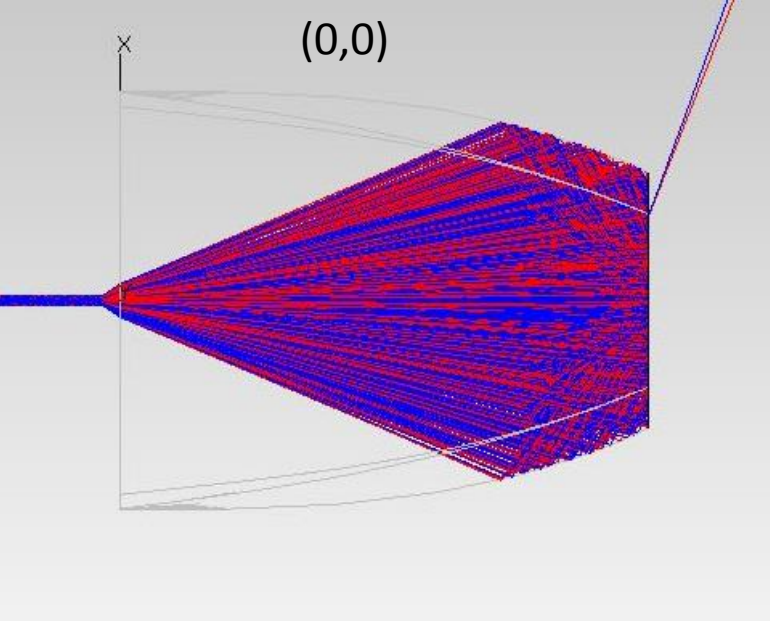
The pink and Green are just about on top of each other.

All of the following pictures are of this graph in the **X Axis**.

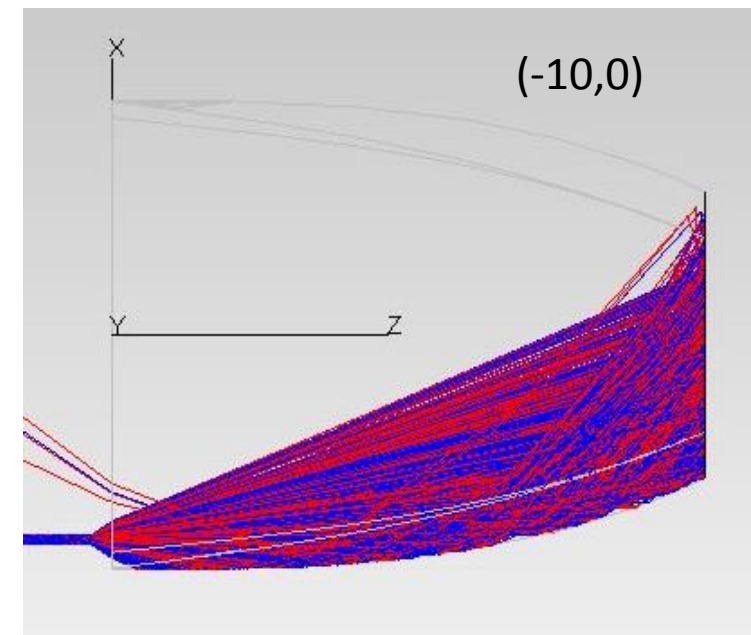
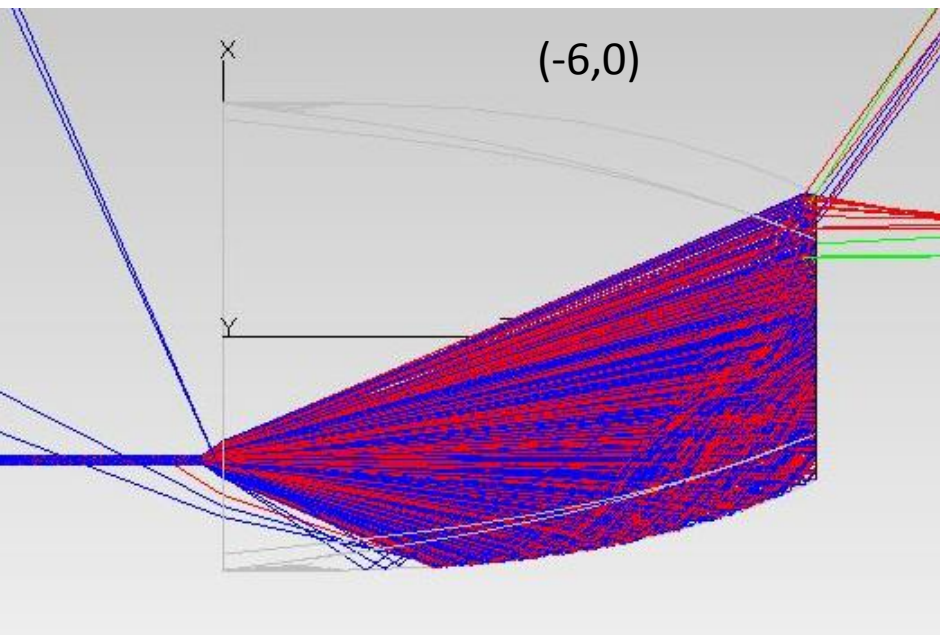
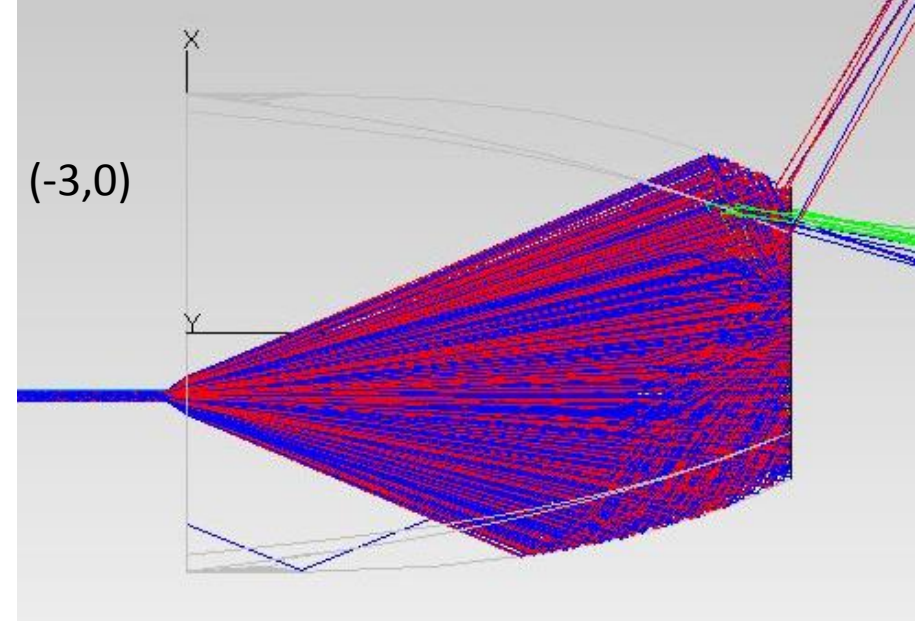
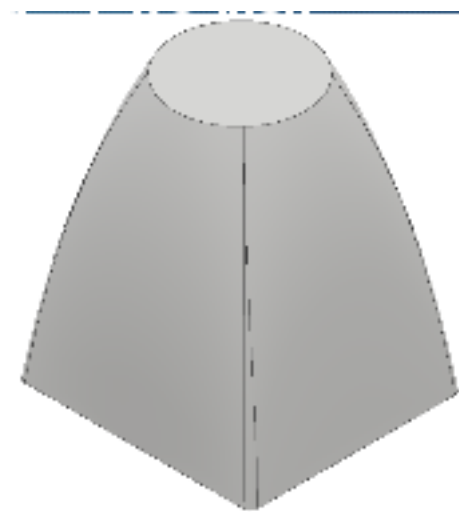


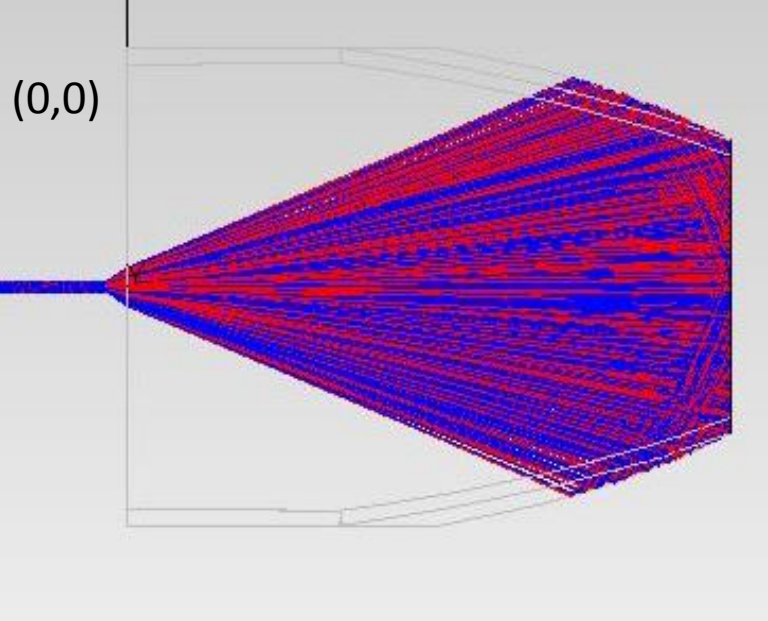
LGWC 1



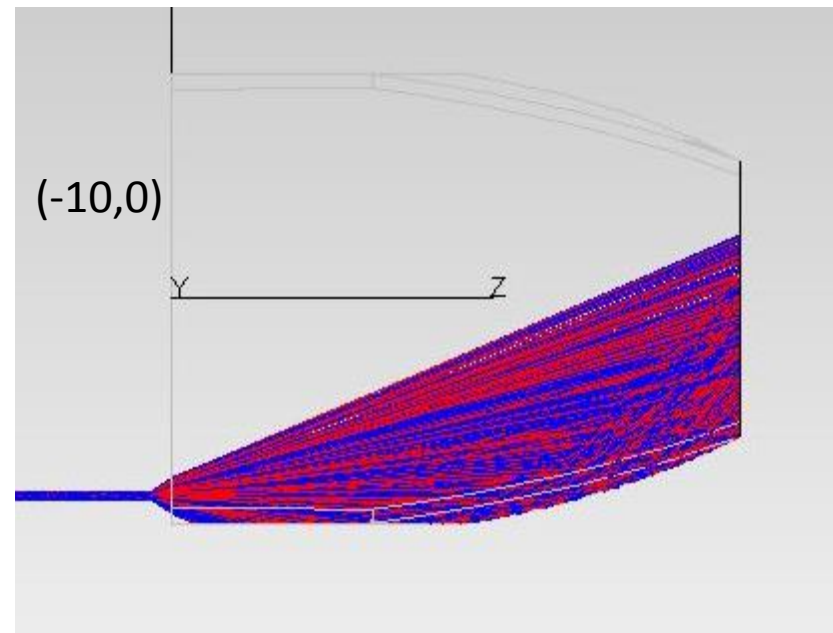
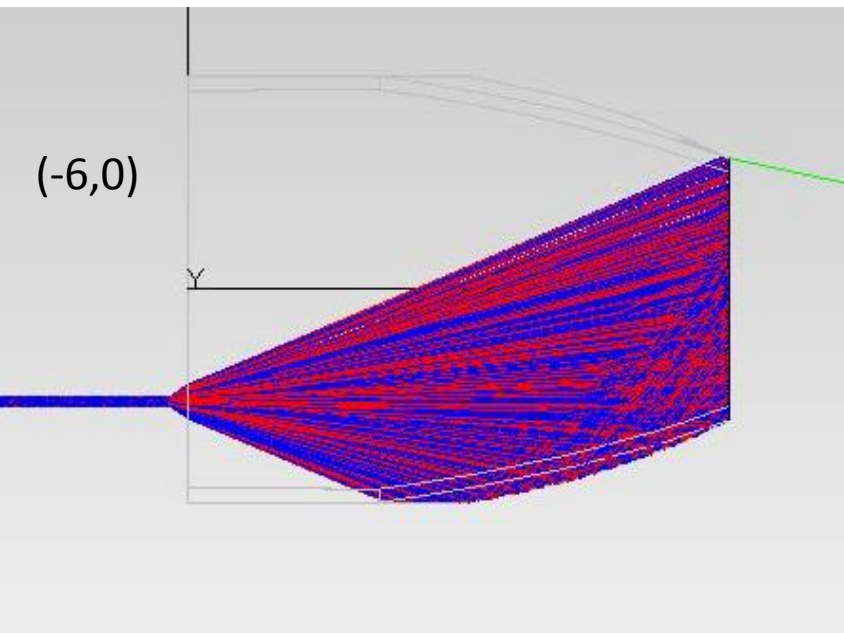
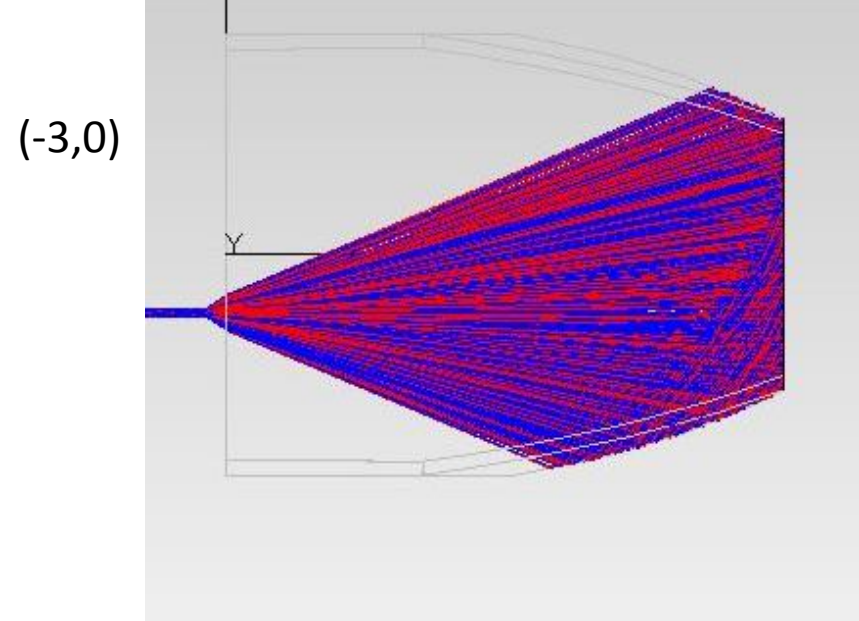
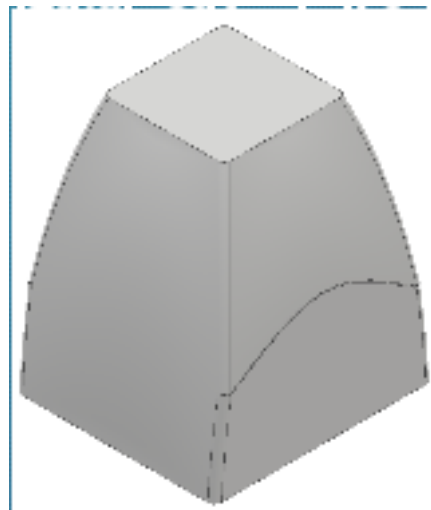


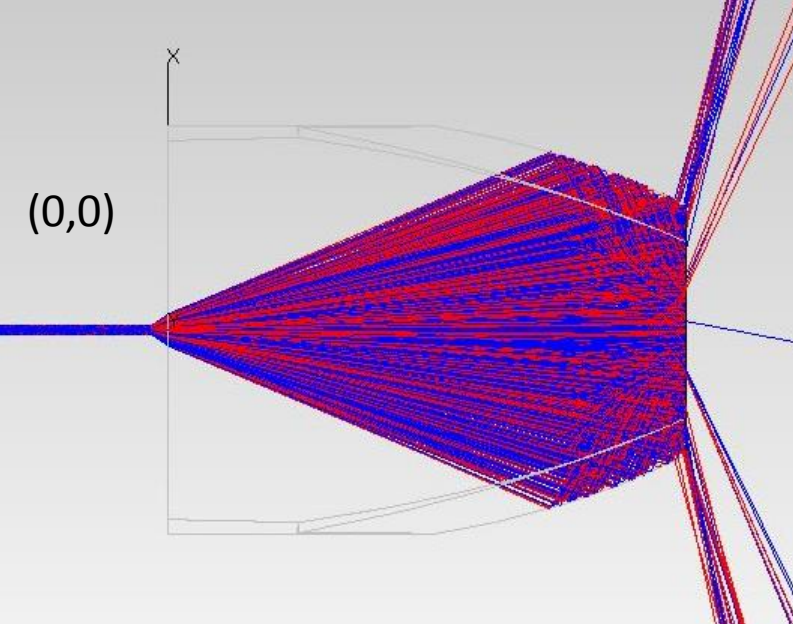
LGWC 2



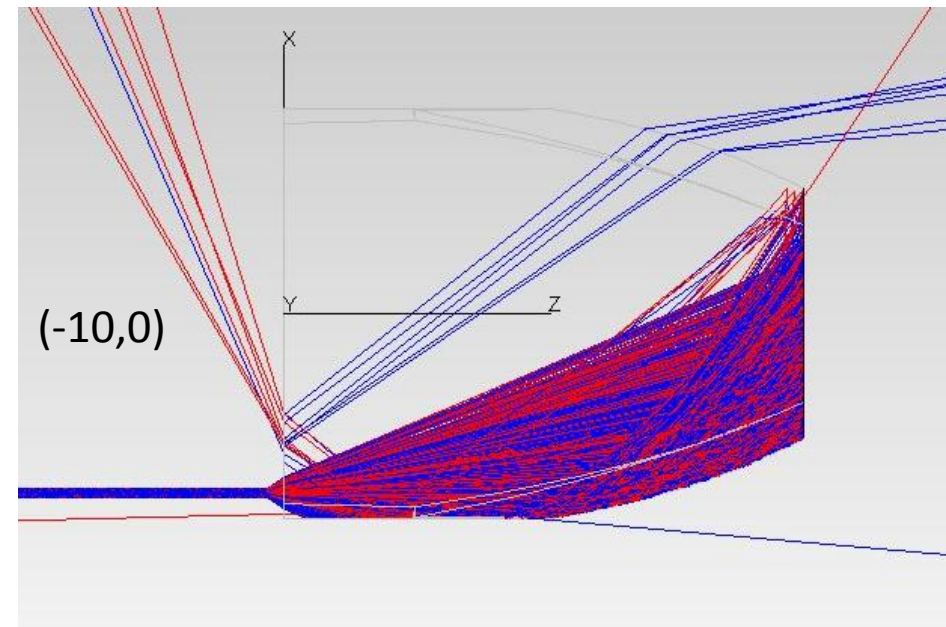
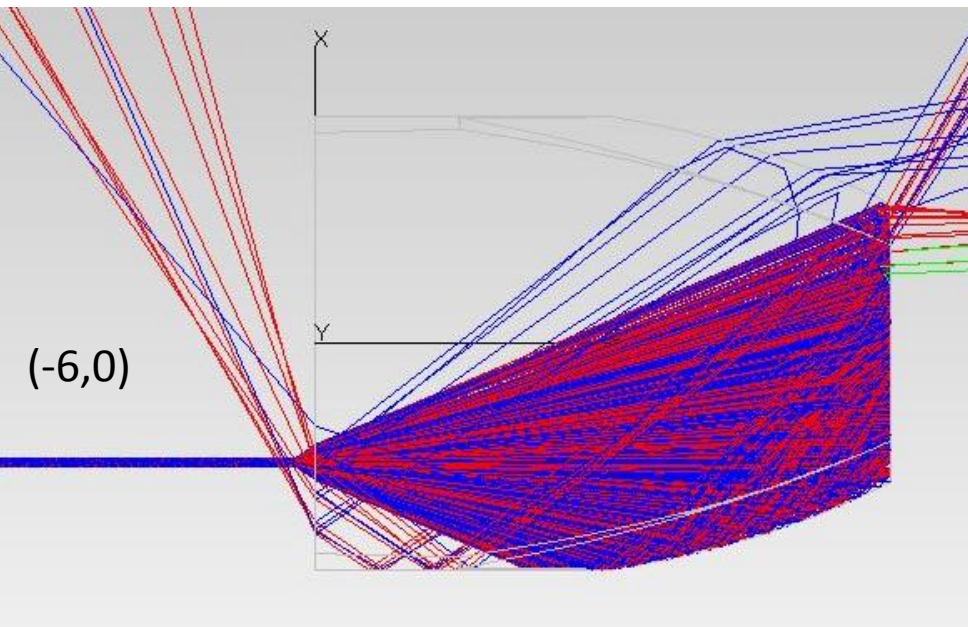
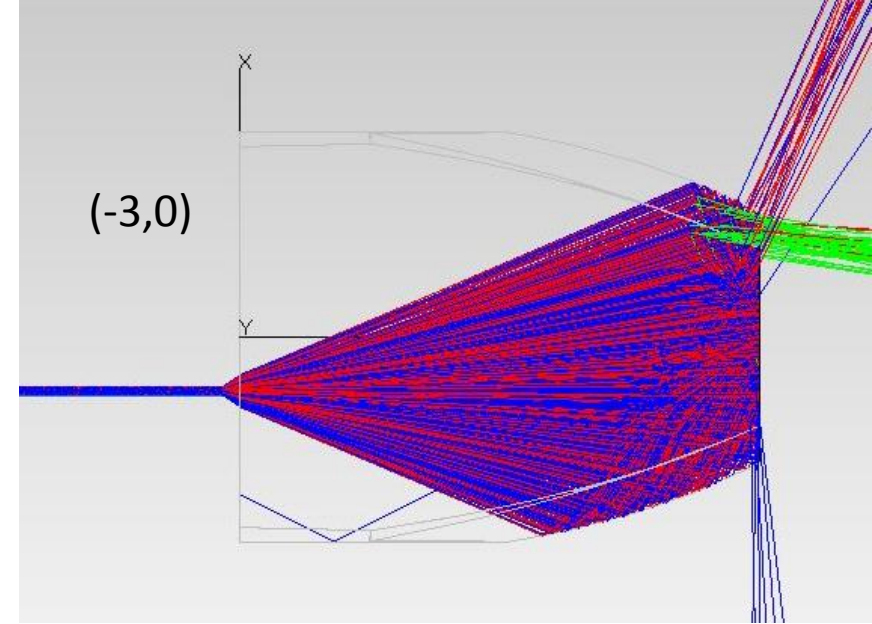
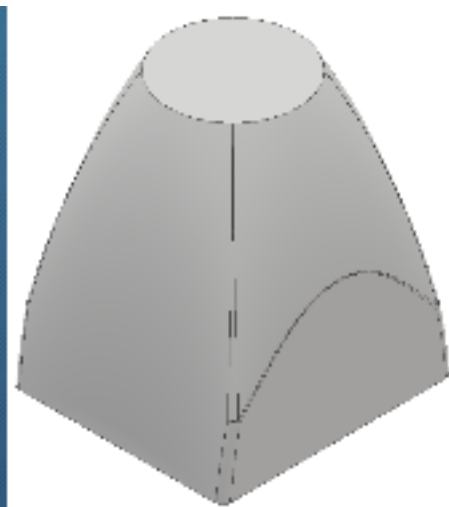


LGWC 3

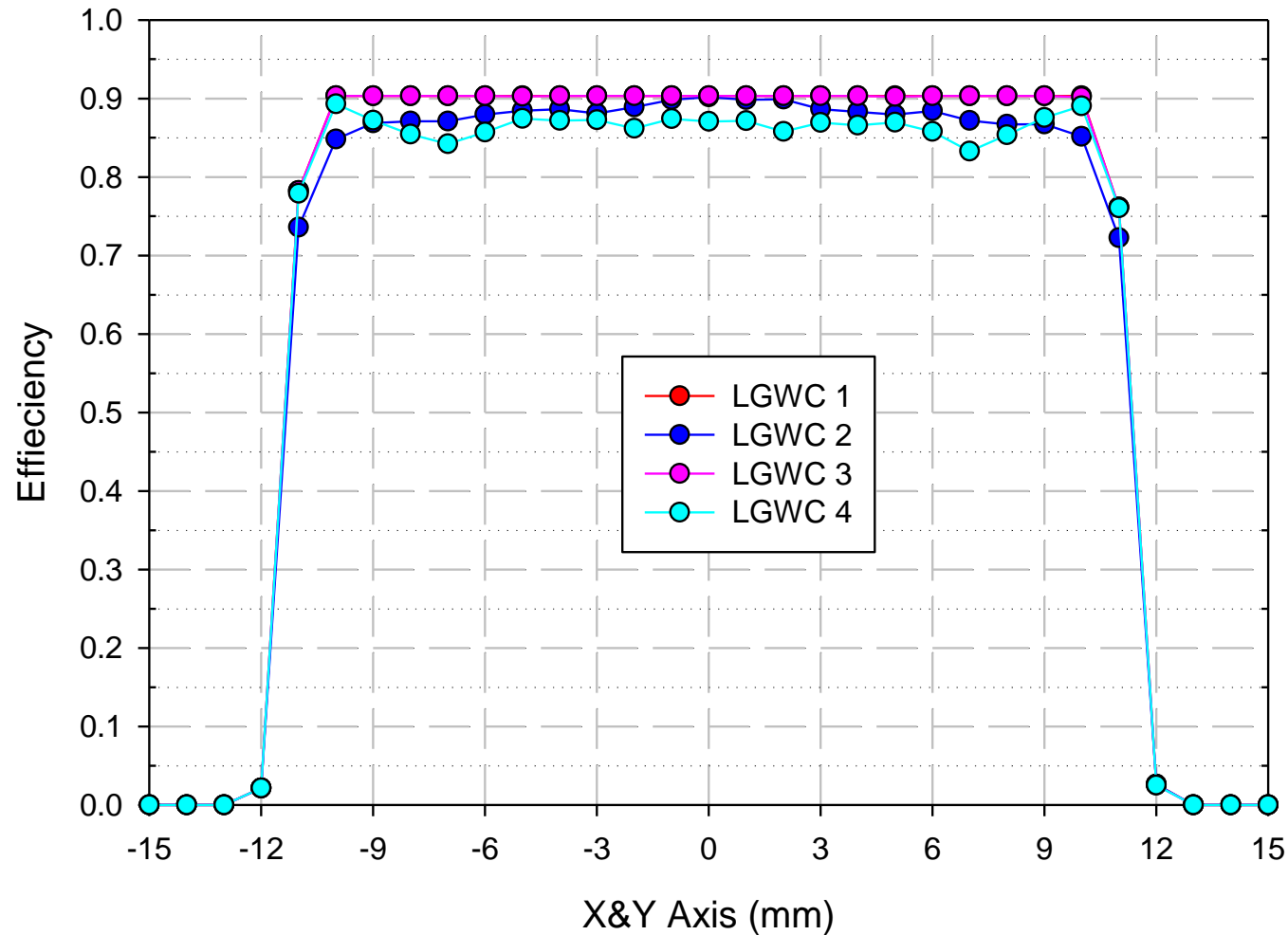




LGWC 4

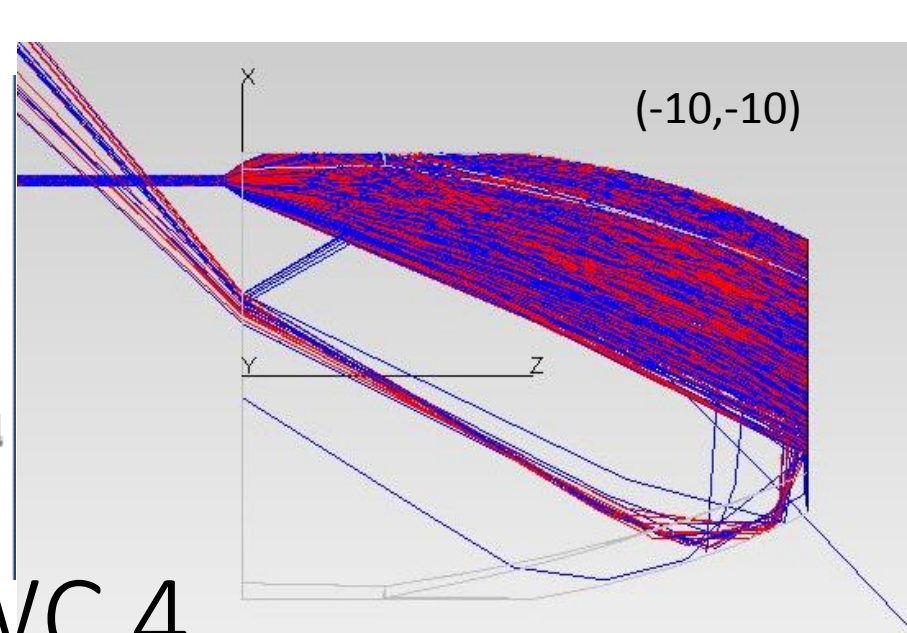
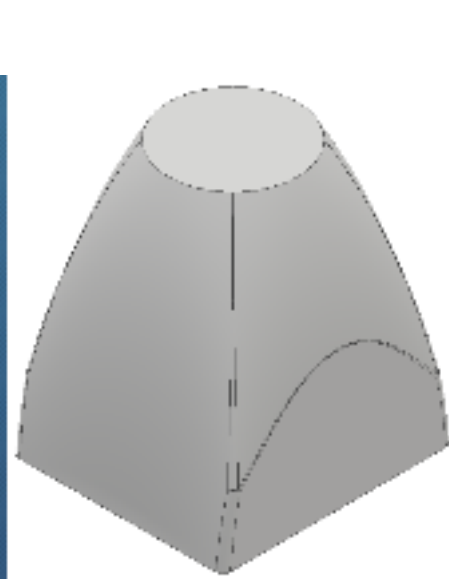
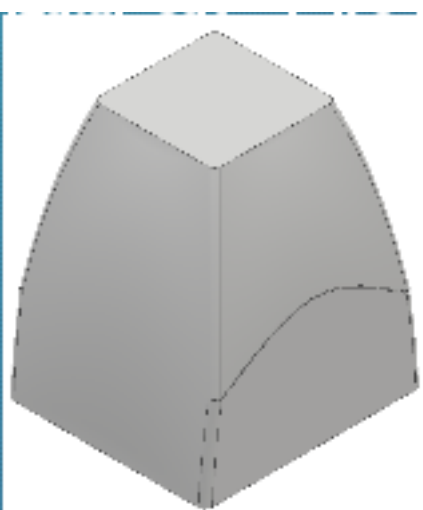
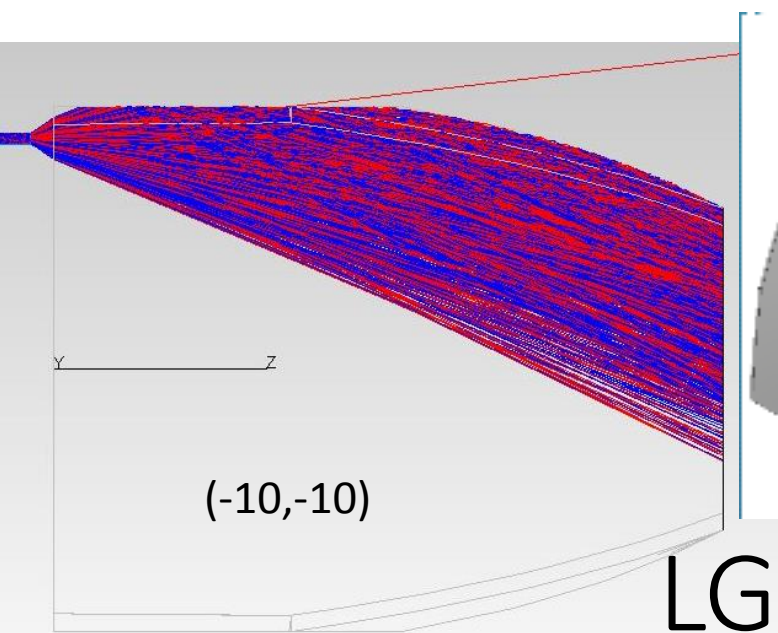
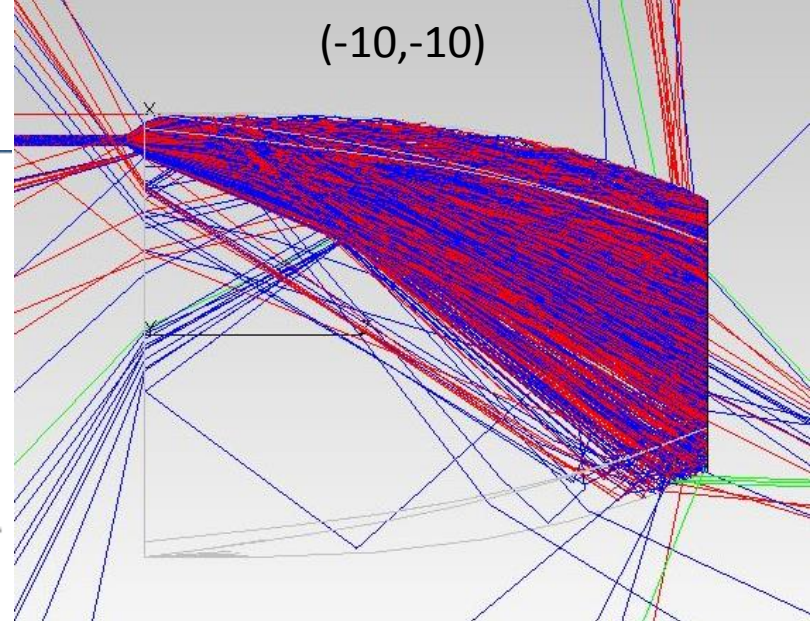
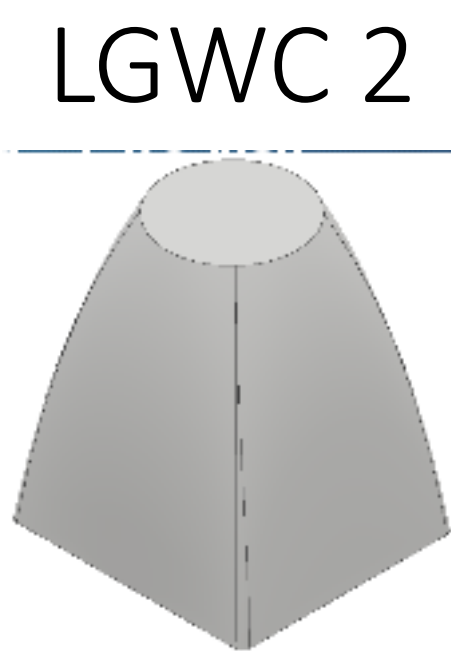
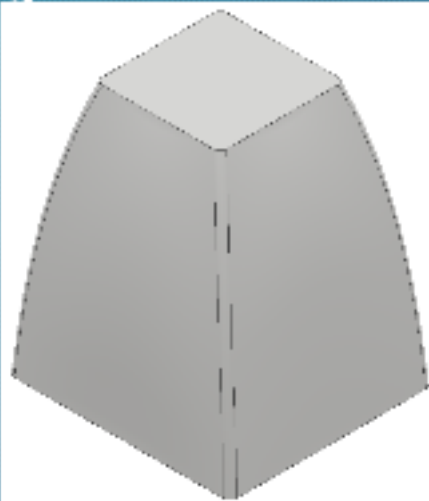
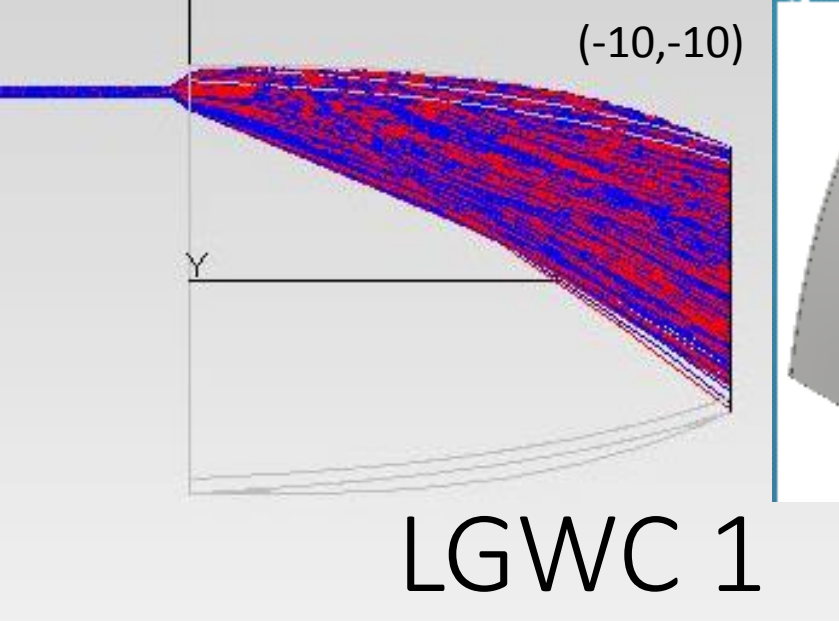


TracePro Light Guide Efficiency Comparisons

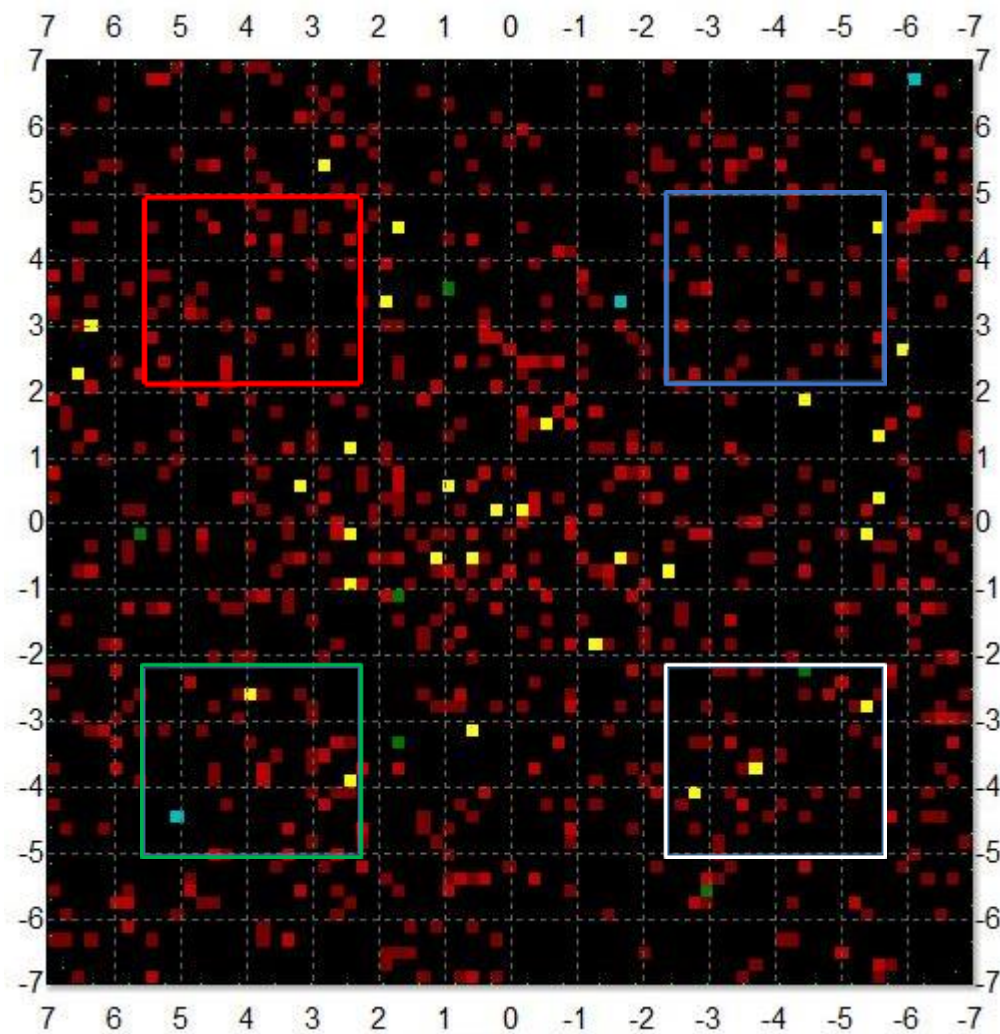


The pink and Green are just about on top of each other.

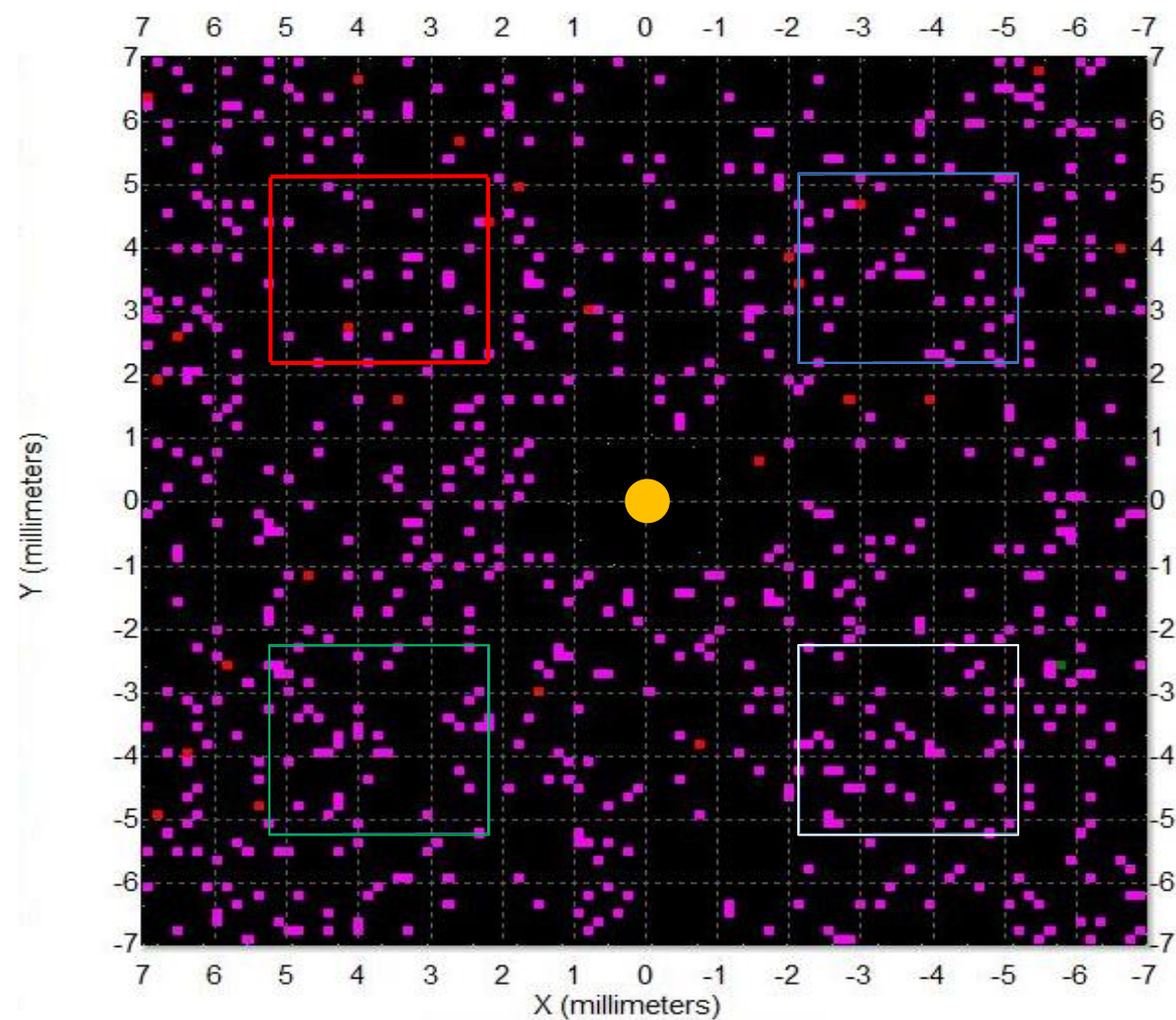
All of the following pictures are of this graph on the **Diagonal**.



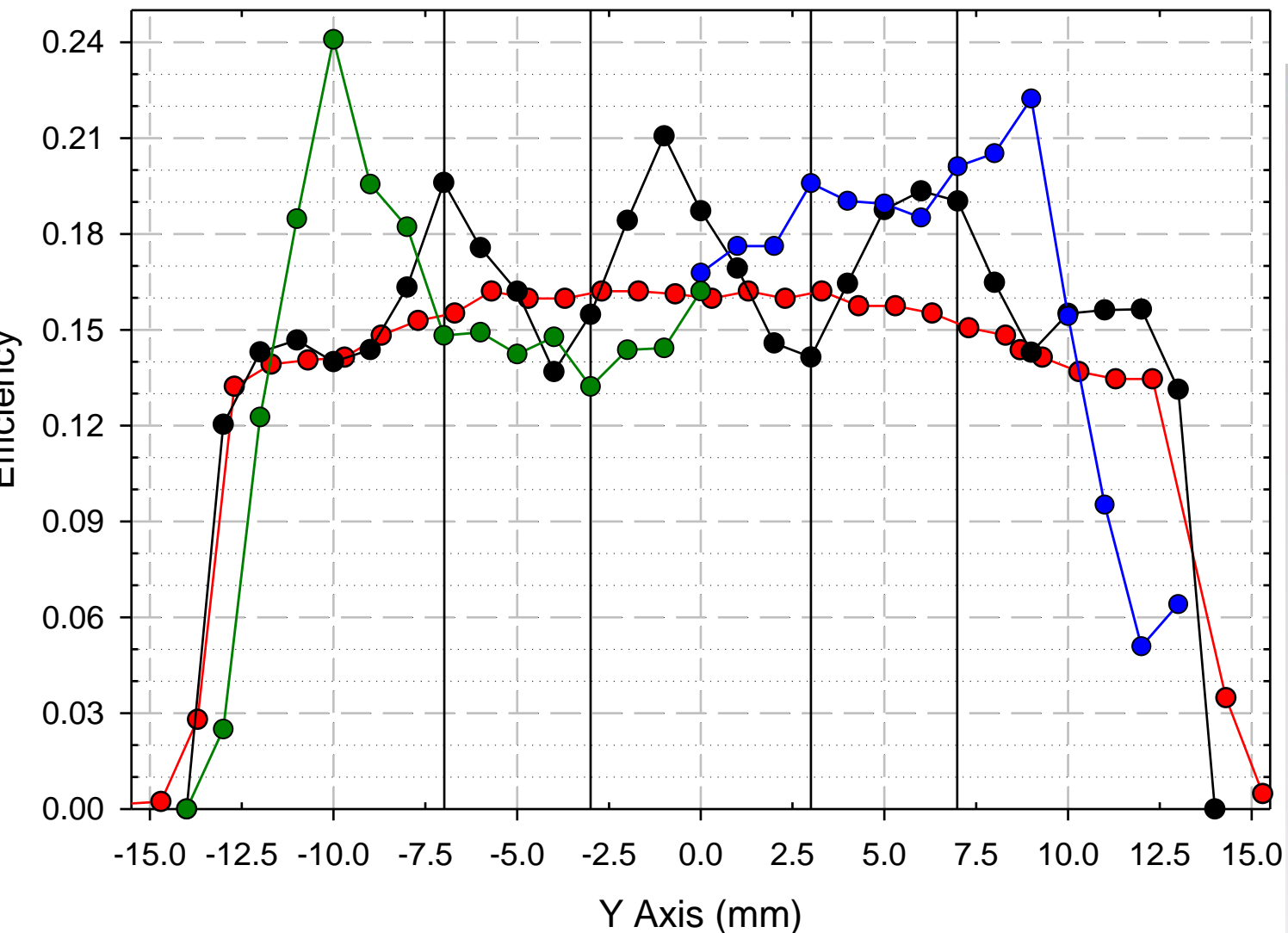
LGWC1 Light Guide



Original Light Guide

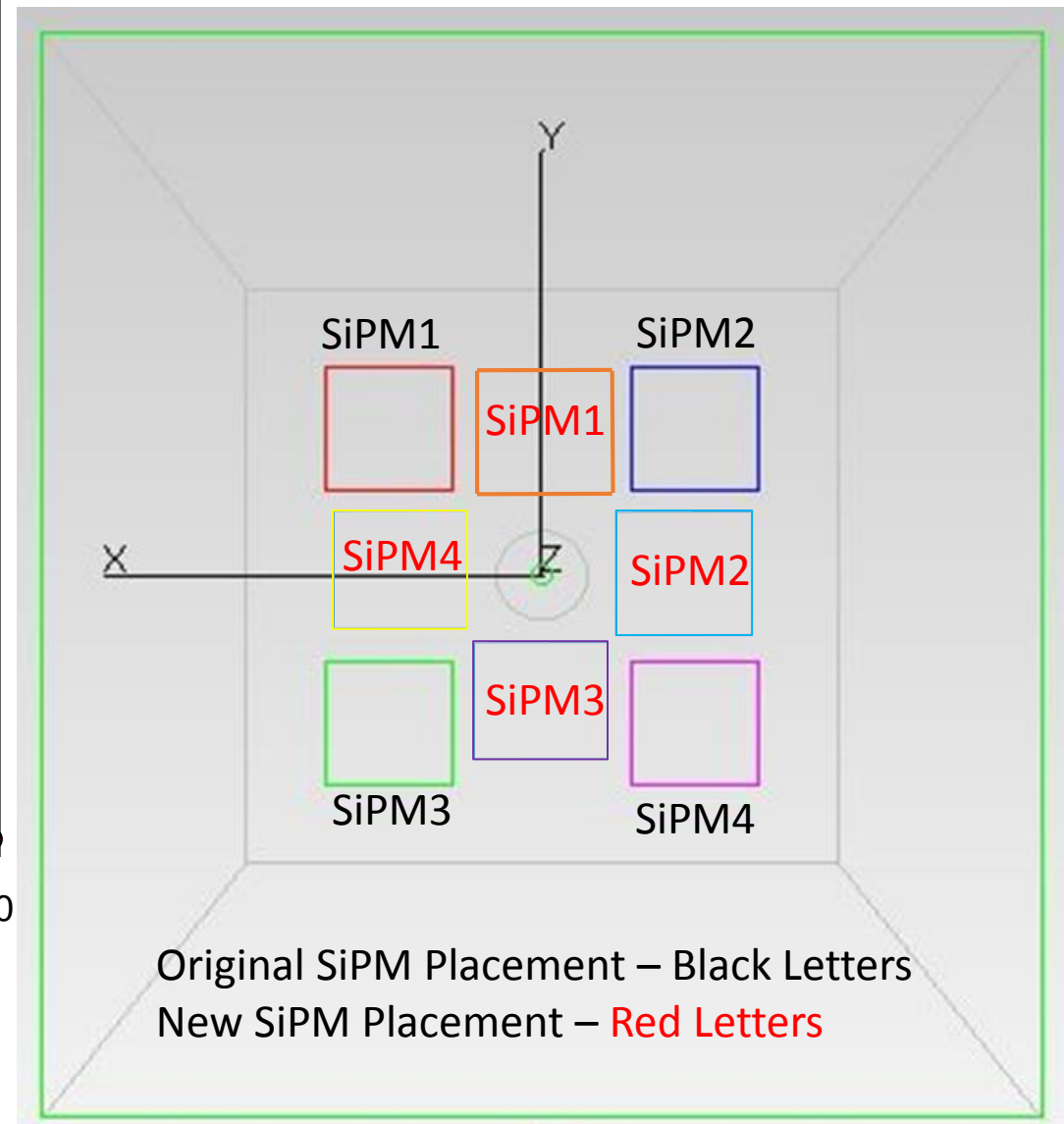


Four SiPMs with Air Gap Flux Efficiency - No Screw Hole



All with
10000 Rays.

- Original LG/Original SiPMs - Lab Measured
- Original LG/Original SiPMs - TracePro
- WCLG1/Arranged SiPMs - TracePro
- WCLG1/Original SiPMs - TracePro



In the future:

- Add SiPMs to all of the Winston Cone Light Guides and begin measuring their light efficiency.
- Maybe change the number/position of the SiPMs on these light guides.
 - Look into a SiPM in the middle of WCLG1
- Create these light guides in the lab and make light efficiency measurements to see if the results are the same.